UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:

Lindsay Light II, Parcel 2
Operable Unit 10
451 East Grand Avenue aka
400 East Illinois aka
510 North Peshtigo
Chicago, Illinois

Respondent:

RMW Streeterville, LLC

ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON
CONSENT FOR REMOVAL ACTION

Docket No. V-W-16-C-005

Proceeding Under Sections 104, 106(a), 107
and 122 of the Comprehensive
Environmental Response, Compensation,
and Liability Act, as amended,
42 U.S.C. §§ 9604, 9606(a), 9607 and 9622

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("U.S. EPA") and Respondent. This Settlement Agreement provides for the performance of removal actions by Respondent including recording deed restrictions on portions of the Site where radioactive contamination may be present and the reimbursement of certain response costs incurred by the United States at or in connection with the property designated Parcel 2 of the Lindsay Light II Operable Unit ("OU") 10, located at 451 East Grand Avenue (aka 400 East Illinois/510 North Peshtigo), Chicago, Illinois and known as the "Site."

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended ("CERCLA"). This authority has been delegated to the Administrator of the U.S. EPA by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrators by U.S. EPA Delegation Nos. 14-14-A, 14-14-C and 14-14-D, and to the Director, Superfund Division, Region 5, by Regional Delegation Nos. 14-14-A, 14-14-C and 14-14-D.

3. U.S. EPA has notified the State of Illinois (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

4. U.S. EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Settlement Agreement. Respondent agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms.

II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon U.S. EPA and upon Respondent and its beneficiaries, successors and assigns. Any change in ownership or corporate status of the Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter the Respondent's responsibilities under this Settlement Agreement.

6. Respondent is jointly and severally liable for carrying out all activities required by this Settlement Agreement.

7. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of and comply with this Settlement Agreement. Respondent shall ensure that its contractors, subcontractors, and representatives comply with this Settlement Agreement. Respondent shall be responsible for any noncompliance with this Settlement Agreement.

III. DEFINITIONS

8. Unless otherwise expressly provided herein, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

b. "Day" shall mean a calendar day unless otherwise specified. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXX (Effective Date).

d. "Interest" shall mean interest at the rate specified for interest on investments of the U.S. EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

e. Lindsay Light-related contaminant or contamination shall mean only radiologically contaminated material and asbestos-contaminated gas mantle string ties associated with the Lindsay Light Company or the Lindsay Light and Chemical Company manufacturing operations at 161 E. Grand Avenue, 22 W. Hubbard Street, or 316 E. Illinois Street.

f. "Lindsay Light Removal Sites" shall collectively refer to the Lindsay Light I (161 E. Grand), Lindsay Light II (OUs 00-22), and Lindsay Light III (22 W. Hubbard) CERCLA removal actions.

g. "Lindsay Light II Special Account" shall mean the Lindsay Light II Special Account established to be retained and used to conduct or finance response actions at or in connection with the Lindsay Light Removal Sites or to be transferred by U.S. EPA to the EPA Hazardous Substance Superfund.

h. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

i. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral or an upper or lower case letter.

j. "Parties" shall mean U.S. EPA and Respondent.

k. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.* (also known as the Resource Conservation and Recovery Act).

l. "Respondent" shall mean RMW Streeterville, LLC, a Delaware limited liability company qualified to do business in Illinois.

m. "Response Costs" shall mean all costs, including but not limited to, direct and indirect costs, that the United States has incurred or incurs on or after or May 8, 2014, reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement. Response costs shall also include, but not be limited to, payroll costs, contractor costs, travel costs, laboratory costs, the cost incurred pursuant to Paragraph 24 (including, but not limited to, costs and attorneys fees and any monies paid to secure access, including, but not limited to, the amount of just compensation), and Paragraph 37 (Emergency Response).

n. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXIX (Severability/Integration/Exhibits). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

o. "Site" shall mean the Lindsay Light II, Operable Unit 10, 451 East Grand Avenue aka 400 East Illinois aka 510 North Peshtigo and formerly known Kraft Parcel 2, Superfund Site in Chicago, Cook County, Illinois and depicted generally as the "Future Development Parcel" on the map attached as Exhibit A-1 and includes the property described in the legal description attached as Exhibit B. The map attached as Exhibit A-2 includes additional detail regarding rights-of-way and utility locations. The Cook County Parcel Identification Number for this property is 17-10-218-013-0000.

p. "State" shall mean the State of Illinois.

q. "Tronox Bankruptcy Settlement Agreement" shall mean *In Re: Tronox Inc.,* Case No. 09-10156 (Bankr. SDNY) (ALG) Consent Decree and Environmental Settlement Agreement, lodged November 23, 2010, as amended by the First Amendment to the Consent Decree as approved by the Bankruptcy Court on February 14, 2011, together with the U.S. District

Court-approved Anadarko Settlement Agreement, *In Re: Tronox Inc.*, Civil Action No. 14-05495 (SDNY Nov. 11, 2014).

r. "Uninvestigated Site Area" shall mean any portion of the Site which is not radiologically surveyed in 18-inch lifts or any portion of the site where any known radioactive contamination will remain after completion of the Work.

s. "U.S. EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

t. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and 4) any "hazardous material" under Section 3.125 of the Illinois Environmental Protection Act, 415 ILCS 5/3.125 (2002).

u. "Work" shall mean all activities the Respondent is required to perform under this Settlement Agreement.

v. "Work Plan" shall mean the U.S. EPA-approved work plan including schedule described in Section VIII Work to be Performed and is attached as Exhibit C to this Settlement Agreement.

IV. FINDINGS OF FACT

9. Based on available information, including the Administrative Record in this matter, U.S. EPA hereby finds that:

a. The Site is located at 451 East Grand Avenue aka 400 East Illinois aka 510 North Peshtigo in Chicago, Illinois.

b. Beginning in 1904, Lindsay Light manufactured gas lights and gas mantles for residential and commercial use at several locations in the Streeterville area. The production of thorium for its gas light mantles resulted in a sandy waste known as mill tailings that was used as fill material in the Streeterville area. Lindsay Light corporate records indicate that the company planned to move all of its Streeterville operations to the City of West Chicago by September 1936.

c. Historical news reports and Lindsay Light board of director's minutes indicated, that in addition to thorium, Lindsay Light also processed or handled other radioactive rare earths and radioactive materials at its Streeterville facilities and in West Chicago.

d. The Lindsay Light mill tailings contain thorium-232 which is a radionuclide that is a hazardous substance under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

e. U.S. EPA designated the initial thorium removal action at the 316 East Illinois Street which was the former location of Lindsay Light's ore processing plant as the Lindsay Light II Removal Site. Following that initial removal action during which approximately 24,000 cubic yards of thorium contaminated soils were removed, U.S. EPA has identified 20 other Lindsay Light II removal action operable units. Radioactive contamination also was identified and removed from several other nearby Lindsay Light II OUs, including OU 00 (316 E. Illinois) and OU 3 (341 E. Ohio).

f. To date, approximately 50,000 cubic yards of thorium contaminated material associated with the Lindsay Light II facility have been removed from the Streeterville area.

g. U.S. EPA's cleanup criterion for the Streeterville area of Chicago is 7.1 picocuries per gram (pCi/g) total radium.

h. Pursuant to an Administrative Order on Consent, dated December 5, 2005, EPA Docket No. V-W-05-C-834, MCL Companies, a former owner of Operable Unit 10 (Parcel 1 and Parcel 2), identified and removed over 210 truckloads (more than 2,000 cubic yards) of soils containing in excess of 7.1 pCi/g total radium from the adjoining property known as Parcel 1 and surrounding right-of-ways. The Parcel 2 property which is the subject of this Agreement, however, was not fully investigated or remediated.

i. Lantern mantle strings containing asbestos have also been found mixed with thorium-contaminated soils in Streeterville.

j. Respondent intends to begin to excavate the Site in early 2016.

k. Construction laborers, utility workers and the public may be exposed to elevated levels of radiation if the Site is excavated without proper radiation monitoring and management and disposal of radioactively contaminated materials.

l. Respondent may choose to identify and remove radioactively contaminated soil only from certain portions of the Site; however, if Respondent does not fully investigate the Site in 18 inch lifts to native soils, then Respondent may not be eligible for any reimbursement from the Lindsay Light II Special Account.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

10. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, U.S. EPA has determined that:

a. The Site is a part of a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at the Lindsay Light II facility, as identified in the Findings of Fact above, includes a "hazardous substance" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. The Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. The Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of response action and for response costs incurred and to be incurred at the Site.

    i. Respondent RMW Streeterville, LLC, is the "owner" and/or "operator" of the Site, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

e. The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility into the "environment" as defined by Sections 101(22) and 101(8) of CERCLA, 42 U.S.C. §§ 9601(22) and 9601(8).

f. The conditions present at the facility constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 C.F.R. § 300.415(b)(2). These factors include, but are not limited to, the following:

g. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants; this factor is present at the Site due to the existence of elevated levels of thorium found in subsurface soils that will be exposed by the removal of overburden and excavation.

    i. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; this factor is present at the facility due to the existence of elevated levels of thorium in subsurface soils that will be exposed by the removal of overburden and excavation.

    ii. Other situations or factors that may pose threats to public health or welfare or the environment; this factor is present at the facility due to the existence of elevated levels of thorium in subsurface soils that may be exposed during construction activities that may expose construction laborers, utility workers and the public to excessive levels of thorium.

h. The removal actions required by this Settlement Agreement, including environmental covenants, and/or institutional controls, are necessary to protect the public health, welfare, or the environment, 42 U.S.C. § 9604(a)(1), is in the public interest, 42 U.S.C. § 9622(a), and, if carried out in compliance with the terms of this Settlement Agreement,

will be done properly and promptly by the Respondent and considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VI. SETTLEMENT AGREEMENT AND ORDER

11. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Settlement Agreement, including, but not limited to, all Exhibits to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

12. Respondent has selected a supervising contractor known as AECOM to perform the Work. Respondent has provided U.S. EPA with the qualifications of AECOM. Respondent has also notified U.S. EPA of the names of the General Contractor, Lend Lease, and subcontractors, Huber & Associates, Glenn L. Huber, I.C.E. Service Group, Ind., MGM Excavating LLC as the subcontractors retained to perform the Work at the Site. If Respondent contracts with any other contractors or subcontractors to perform Work, Respondent must provide notice of the name(s) and qualification(s) of such person(s) at least 5 business days prior to commencement of such Work. U.S. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If U.S. EPA disapproves of a selected contractor, Respondent shall retain a different contractor and shall notify U.S. EPA of that contractor's name and qualifications within 3 business days of U.S. EPA's disapproval. The contractor must demonstrate compliance with American National Standards Institute/American Society for Quality Control ("ANSI/ASQC") E-4-2004, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), by submitting a copy of the contractor's Quality Management Plan ("QMP"). The QMP should be prepared consistent with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B0-1/002) March 2001, Reissue Notice May 2006, or equivalent documentation as required by U.S. EPA. Any decision not to require submission of the contractor's QMP should be documented in a memorandum from the On-Scene Coordinator and Regional quality assurance personnel to the Site file.

13. Respondent has designated Steve Kornder of AECOM as the Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. U.S. EPA retains the right to disapprove of any subsequent designated Project Coordinator. If U.S. EPA disapproves of a designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify U.S. EPA of that person's name, address, telephone number, and qualifications within 4 business days following U.S. EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from U.S. EPA relating to this Settlement Agreement shall constitute receipt by Respondent.

14. U.S. EPA has designated Verneta Simon of the Emergency Response Branch, Region 5, as the On-Scene Coordinator ("OSC") and Gene Jablonowski, Health Physicist, of the Emergency Response Branch, Region 5 as the alternate. Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to the OSCs in accordance with Section XXVIII Notices and Submissions. Respondent is encouraged to make its submissions to U.S. EPA on recycled paper (which includes significant post consumer waste paper content where possible) and using two-sided copies.

15. U.S. EPA and Respondent shall have the right, subject to Paragraph 13, to change their respective designated OSCs or Project Coordinator. U.S. EPA shall notify the Respondent, and Respondent shall notify U.S. EPA, as early as possible before such a change is made, but in no case less than 24 hours before such a change. The initial notification may be made orally but it shall be promptly followed by a written notice.

VIII. WORK TO BE PERFORMED

16. Respondent shall perform, at a minimum, the following removal activities:

a. Develop a Work Plan for the radiological assessment of the site.

b. Develop and implement a site health and safety plan.

c. Develop and implement an air monitoring plan.

d. Develop and implement site security measures.

e. Conduct land surveying to the extent necessary to establish a grid system and locate all property boundaries, special features (pipes, storage tanks, etc.), and sample locations.

f. Conduct radiation surveillance and sampling in compliance with the U.S. EPA-approved work plan.

g. Collect soil samples and analyze for radionuclide content and RCRA characteristics. These results will then be used by the Respondent to correlate subsurface radiation levels and radionuclide content, and to determine the disposal facility.

h. Conduct off-site radiological surveying and sampling as necessary should contamination be discovered within the sidewalk rights-of-ways surrounding the Site and, at a minimum implement 40 C.F.R. §192 if deemed necessary.

i. Based upon soil results, remove, transport and dispose of all characterized or identified hazardous substances, pollutants, wastes or contaminants at a RCRA/CERCLA approved disposal facility in accordance with the U.S. EPA off-site rule.

j. The soil clean-up criterion is 7.1 pCi/g total radium (Ra-226 + Ra-228) including background, unless analyses indicate the existence of additional contaminants, hazardous substances, pollutants or waste.

k. If any portion of the Site is not radiologically surveyed in 18-inch lifts or if any known contamination will remain after completion of the Work, then, using a scaled Site map with survey grade coordinates and elevations, Respondent shall identify and denote all locations at the Site that were not radiologically surveyed in 18-inch lifts or where any known contamination will remain after completion of the Work and shall implement a U.S. EPA-approved Environmental Covenant or other U.S. EPA-approved institutional controls pertaining to the Site.

l. Record a U.S. EPA-approved Environmental Covenant which runs with the land and that will require radiation monitoring whenever subsurface soils at the Site are exposed, excavated or intruded upon, as well as proper management and disposal of any radioactively contaminated material encountered.

17. Work Plan and Implementation.

Respondent shall not commence any Work except in conformance with the terms of this Settlement Agreement. Respondent shall implement the Work Plan as approved in writing by U.S. EPA in accordance with the schedule approved by U.S. EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement. Respondent shall not commence implementation of the Work Plan developed hereunder until receiving written U.S. EPA approval, including any approval(s) pursuant to Paragraph 17(b).

a. On October 22, 2015, Respondent submitted to U.S. EPA for approval a draft Work Plan, including a schedule, for performing the removal action generally described in Paragraph 16 above. On December 22, 2015, U.S. EPA approved the Work Plan.

b. If U.S. EPA requires revisions, Respondent shall submit a revised draft Work Plan within 7 business days of receipt of U.S. EPA's notification of the required revisions.

18. Health and Safety Plan.

Respondent has submitted for U.S. EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-Site work under this Settlement Agreement. This plan must be prepared consistent with U.S. EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If U.S. EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by U.S. EPA and shall implement the plan during the pendency of the removal action.

19. Quality Assurance and Sampling.

a. All sampling and analyses performed pursuant to this Settlement Agreement shall conform to U.S. EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate U.S. EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001, reissued May 2006)," or equivalent documentation as determined by U.S. EPA. U.S. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements. Respondent shall prepare a Quality Assurance Project Plan ("QAPP") as part of the Work Plan except in circumstances involving emergency or non-complex removal work. The QAPP should be prepared in accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001), and "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-98/018, February 1998).

b. Upon request by U.S. EPA, Respondent shall have such a laboratory analyze samples submitted by U.S. EPA for QA monitoring. Respondent shall provide to U.S. EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by U.S. EPA, Respondent shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples. Respondent shall notify U.S. EPA not less than 3 business days in advance of any sample collection activity, unless shorter notice is agreed to by U.S. EPA. U.S. EPA shall have the right to take any additional samples that U.S. EPA deems necessary. Upon request, U.S. EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent's implementation of the Work.

20. Reporting.

a. Respondent shall submit a written progress report to U.S. EPA concerning actions undertaken pursuant to this Settlement Agreement every 30th day after the date of receipt of U.S. EPA's approval of the Work Plan until termination of this Settlement Agreement, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the actions performed

and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Respondent shall submit an electronic copy and two (2) paper copies of all plans, reports or other submissions required by this Settlement Agreement, or any approved work plan. If any drawing, diagram, survey, or other document is larger than 8.5 inches x 14 inches then Respondent shall provide four (4) copies of the oversized document(s) to U.S. EPA.

c. Respondent shall prior to the transfer or conveyance of any interest in real property at the Site (excluding tenant leases, parking spaces, or with respect to any condominium unit or units created on the site, any deed conveying title to a condominium unit or mortgage creating a lien on such condominium unit), give written notice to the transferee that the property is subject to this Settlement Agreement and written notice to U.S. EPA of the transfer or conveyance, including the name and address of the transferee. Respondent also agrees to require that its successors comply with the immediately preceding sentence and Sections IX (Site Access), X (Environmental Covenant/Institutional Control Document) and XI (Access to Information).

21. Final Report.

Within 60 calendar days after completion of all Work required by Section VIII of this Settlement Agreement, Respondent shall submit for U.S. EPA review a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports" and with the guidance set forth in "Superfund Removal Procedures: Removal Response Reporting – POLREPS and OSC Reports" (OSWER Directive No. 9360.3-03, June 1, 1994). The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (*e.g.*, manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

22. Off-Site Shipments.

a. Radioactive Waste Material. Respondent will transport radioactive Waste Material to a disposal facility licensed to accept radioactive Waste Material from the Site. Respondent has identified two facilities, U.S. Ecology in Grand View, Idaho and Energy Solutions, in Clive, Utah, that are licensed to accept the radioactive Waste Material from the Site. At least 48 hours prior to the initial shipment of radioactive Waste Material originating from the Site to either of the two identified facilities, Respondent shall provide written notification of such shipment to the appropriate state environmental official and to the On-Scene Coordinator. If Respondent determines to transport radioactive Waste Material to a facility other than U.S. Ecology in Grand View, Idaho or Energy Solutions, in Clive, Utah, at least 14 days prior to the initial shipment of radioactive Waste Material originating from the Site, Respondent shall provide written notification of such shipment to the appropriate state environmental official and to the On-Scene Coordinator.

i. Respondent shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

ii. If Respondent awards the contract for the disposal of radioactive Waste Material to a receiving facility and state other than U.S. Ecology in Grand View, Idaho or Energy Solutions, in Clive, Utah, then Respondent shall provide the information required by Paragraph 22(a) and (a) i. as soon as practicable after the award of the contract but no later than 14 days before the Waste Material is actually shipped.

b. Other Waste Material. If Respondent encounters any hazardous substances that are not radioactively contaminated in the course of conducting the Work, then before shipping any such hazardous substances, pollutants, or contaminants that are not radioactively contaminated from the Site to an off-site location, Respondent shall obtain U.S. EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

i. Respondent has identified the Laraway Management Facility in Joliet, Illinois, as a RCRA Subtitle D, non-hazardous waste disposal facility licensed by the State of Illinois. Respondent will transport from the Site to the Laraway Management Facility only Waste Material that does not contain hazardous waste which must be disposed of in a RCRA Subtitle C hazardous waste disposal facility or other

appropriately licensed hazardous waste disposal facility. If Respondent determines to transport Waste Material that is non-radioactive or non-hazardous to a facility other than the Laraway Management Facility in Joliet, Illinois, Respondent shall comply with the certification and notice requirements of subparagraph b. above, and subparagraphs b (ii) and (iii), below.

ii. Prior to the initial shipment of Waste Material that is not radioactively contaminated that originated from the Site, Respondent shall provide written notification of such shipment to the appropriate state environmental official and to the On-Scene Coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards. Respondent shall comply with the terms and conditions of the notification requirements of Paragraph 22(a)(i) for each such shipment of non-radioactive hazardous substances, pollutants, and contaminants.

iii. The identity of any other facility and state receiving Waste Material that is not radioactively contaminated will be determined by Respondent following the award of the contract for the removal action. Respondent shall provide the information required by Paragraph 22(a) and 22(b) as soon as practicable after the award of the contract and at least 14 days before the Waste Material is actually shipped.

IX. SITE ACCESS

23. If the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by the Respondent, Respondent shall, commencing on the Effective Date, provide U.S. EPA, the State, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

24. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within 10 business days after the Effective Date, or as otherwise specified in writing by the OSC. Respondent shall immediately notify U.S. EPA if after using its best efforts it is unable to obtain such agreements. For purposes of this Paragraph, "best efforts"include the payment of reasonable sums of money in consideration of access. Respondent shall describe in writing its efforts to obtain access. U.S. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as U.S. EPA deems appropriate. Respondent shall reimburse U.S. EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVI (Payment of Response Costs).

25. Notwithstanding any provision of this Settlement Agreement, U.S. EPA and the State retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

X. ENVIRONMENTAL COVENANT/INSTITUTIONAL CONTROL DOCUMENT

26. Post-Removal Site Control. Consistent with Section 300.415(*l*) of the NCP and OSWER Directive No. 9360.2-02, upon completion of all Work required by Section VIII of this Settlement Agreement, if any portion of the Site is not radiologically surveyed in 18-inch lifts or if any known contamination will remain after completion of the Work then:

a. In accordance with the Work Plan, Respondent shall submit to U.S. EPA a scaled Site map of the Uninvestigated Site Area with survey grade coordinates and elevations, showing the location of any known radioactively-contaminated Waste Material or areas of the Site that have not been screened in 18-inch lifts to native soil; and

b. If Respondent, its contractors, representatives or agents disturb, expose or intrude upon the soils in the Uninvestigated Site Area, Respondent, its contractors, representatives and agents shall notify U.S. EPA both by telephone and in writing of plans to work in the Uninvestigated Site Area at least 72 hours prior to (but no more than 21 calendar days in advance of) commencing such activities. If material containing total radium exceeding 7.1 pCi/g is identified, the Respondent shall provide a letter report to U.S. EPA explaining how the work was conducted in accordance with the Work Plan within 60 days of completion of the work.

27. Within ninety (90) days of the later of U.S. EPA's or Illinois EPA's approval of Respondent's Environmental Covenant (as defined below, if any portion of the Site is not radiologically surveyed in 18-inch lifts or if any known contamination will remain after completion of the Work, Respondent shall record, with the Recorder of Deeds, Cook County, Illinois, an Environmental Covenant, pursuant to the Uniform Environmental Covenants Act, 765 ILCS Ch. 22 (UECA) (Environmental Covenant), that the U.S. EPA and Illinois EPA have approved in writing for this Site, and Respondent agrees that every subsequent deed or conveyance or transfer of any property interest instrument will be subject to the Environmental Covenant. The Respondent further agrees that the language in the Environmental Covenant shall not be modified or removed from the Environmental Covenant without pre-approval from U.S. EPA, as described in Paragraph 28.

a. In the event of a conveyance or transfer of property interest, Respondent's obligations under this Settlement Agreement, including, but not limited to, its obligation to provide or secure access and institutional controls, as well as to abide by such institutional controls pursuant to this Section (Environmental Covenant/Institutional Control Document), shall continue to be met by Respondent unless otherwise agreed to by the U.S. EPA and Illinois EPA in writing. In no event shall the conveyance or transfer of property interest release or otherwise affect the liability of Respondent to comply with all provisions of this Settlement Agreement unless otherwise agreed to among the Parties hereto in writing.

b. The intent of Respondent is to record an Environmental Covenant that is applicable to each subsequent owner of the Site. The Environmental Covenant will apply to any portion of the Site that is not radiologically surveyed in 18-inch lifts or where any known radioactive contamination will remain after completion of the Work. The Environmental Covenant shall provide the following:

1) subject to Paragraph 28, a restriction that "runs with the land" regulating on the disturbance of, exposure of or intrusion upon any portion of the Uninvestigated Site Area;

2) the right to enforce said restrictions;

3) a right of access to the Site;

4) prior notice of disturbance, exposure, intrusion, or excavation of the soils in any portion of the Site that is not radiologically surveyed in 18-inch lifts or where any known radioactive contamination will remain; and

5) an agreement that when soils are disturbed, exposed, intruded or excavated in the Uninvestigated Site Area, those activities are conducted in accordance with the Work Plan.

c. The Respondent agrees that every subsequent deed or other instrument conveying or transferring a property interest in the Site or any portion thereof (excluding tenant leases, parking spaces, or with respect to any condominium unit or units created on the site, any deed conveying title to a condominium unit or mortgage creating a lien on such condominium unit) shall be subject to the Environmental Covenant.

28. U.S. EPA and Illinois EPA may terminate the restrictions in Paragraphs 26 and 27, in whole or in part, in writing, as authorized by law. If requested by the U.S. EPA and Illinois EPA, such writing will be executed by the Respondent in recordable form and recorded with the Recorder of Deeds, Cook County, Illinois. Respondent may modify or terminate the above restrictions in whole or in part, in writing, with the prior written approval of U.S. EPA and Illinois EPA. Respondent may seek to modify or terminate, in whole or in part, the restrictions by submitting to U.S. EPA and Illinois EPA, for approval, a written application that identifies each such restriction to be terminated or modified, describes the terms of each proposed modification and includes proposed revision(s) to the Environmental Covenant and institutional control document described in this Section X (Environmental Covenant/Institutional Control Document). Each application for termination or modification of any restriction shall include a demonstration that the requested termination or modification will not interfere with, impair or reduce protection of human health and the environment. If U.S. EPA, together with the Illinois EPA, determines that an application satisfies the requirements of this Paragraph, including the criteria specified above, U.S. EPA will notify Respondent in writing. If U.S. EPA does not respond in writing to a request to change land use within 90 days of its receipt of that request, unless Respondent agrees to extend this period beyond 90 days, U.S. EPA and Illinois EPA may

be deemed to have denied the request. If a modification to or termination of restriction is approved, Respondent shall record the revised Deed Restriction as approved by U.S. EPA and Illinois EPA, with the Recorder of Deeds, Cook County, Illinois.

XI. ACCESS TO INFORMATION

29. Respondent shall provide to U.S. EPA, upon request, copies of all documents and information within its possession or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondent shall also make available to U.S. EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

30. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to U.S. EPA under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to U.S. EPA, or if U.S. EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondent.

31. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondent asserts such a privilege in lieu of providing documents, Respondent shall provide U.S. EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

32. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydro geologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XII. RECORD RETENTION

33. Until 6 years after Respondent's receipt of U.S. EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 6 years after Respondent's receipt of U.S. EPA's notification pursuant to Section XXVII (Notice of Completion of Work), Respondent shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

34. At the conclusion of this document retention period, Respondent shall notify U.S. EPA at least 60 days prior to the destruction of any such records or documents, and, upon request by U.S. EPA, Respondent shall deliver any such records or documents to U.S. EPA. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, it shall provide U.S. EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

35. Respondent hereby certifies that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by U.S. EPA or the State and that it has fully complied and will fully comply with any and all U.S. EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XIII. COMPLIANCE WITH OTHER LAWS

36. Respondent shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by U.S. EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements ("ARARS") under federal environmental or state environmental or facility siting laws.

XIV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

37. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Response Branch, Region 5 at (312) 353-2318, of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and U.S. EPA takes such action instead, Respondent shall reimburse U.S. EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Payment of Response Costs).

38. In addition, in the event of any release of a hazardous substance from the Site, Respondent shall immediately notify the OSC at (312) 353-2318 and the National Response Center at (800) 424-8802. Respondent shall submit a written report to U.S. EPA within 7 business days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

XV. AUTHORITY OF ON-SCENE COORDINATOR

39. The OSC shall be responsible for overseeing Respondent's implementation of this Settlement Agreement. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

XVI. PAYMENT OF RESPONSE COSTS

40. Payment for Response Costs.

a. Respondent shall pay the U.S. EPA all Response Costs not inconsistent with the NCP. On a periodic basis, the U.S. EPA will send Respondent a bill requiring payment that consists of an Itemized Cost Summary. Respondent shall make all payments within 30 calendar days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 42 of this Settlement Agreement. Payment shall be made to the U.S. EPA by:

i. Electronic Funds Transfer (EFT) in accordance with current EFT procedures to be provided to Respondent by the U.S. EPA Region 5 and shall be accompanied by a statement identifying the name and address of the party making payment, the Lindsay Light II Site OU 10 name, and Site/Spill ID Number 05YT, and the U.S. EPA docket number for this action, or

ii. If the amount demanded in the bill is $10,000 or less, Respondent may, in lieu of the procedures in subparagraph 40(a)(i), make all payments required by this Paragraph by official bank check made payable to "U.S. EPA Hazardous Substance Superfund." Each check, or a letter accompanying each check, shall identify the name and address of the party making payment, the Lindsay Light II Site OU 10 name, U.S. EPA Region 5, the Site/Spill ID Number 05YT, and, if any, the U.S. EPA docket number for this action, and shall be sent to:

U.S. Environmental Protection Agency
Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

b. At the time of payment, Respondent shall send notice that such payment has been made to the Director, Superfund Division, U.S. EPA Region 5, 77 West Jackson Blvd., Chicago, Illinois, 60604-3590, to Mary L. Fulghum, Associate Regional Counsel, 77 West Jackson Boulevard, C-14J, Chicago, Illinois, 60604-3590, and to the U.S. EPA Cincinnati Finance Office by email at acctsreceivable.cinwd@epa.gov, or by mail to: Cincinnati Finance Office, 26 Martin Luther King Drive, Cincinnati, Ohio 45268. Such notice shall reference Site/Spill ID Number 05YT and the U.S. EPA docket number for this action.

c. The total amount to be paid by Respondent pursuant to Paragraph 40 shall be deposited in the Lindsay Light II Special Account within the U.S. EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Lindsay Light II Site, or to be transferred by U.S. EPA to the U.S. EPA Hazardous Substance Superfund.

41. In the event that the payment for Response Costs is not made within 30 days of Respondent's receipt of a bill, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XIX (Stipulated Penalties).

42. Respondent may dispute all or part of a bill for Response Costs submitted under this Settlement Agreement, only if Respondent determines that U.S. EPA has made mathematical error, or if Respondent believes the U.S. EPA incurred excess costs as a direct result of a U.S.

EPA action that was inconsistent with a specific provision or provisions of the NCP. If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondents shall pay the full amount of the uncontested costs to U.S. EPA as specified in Paragraph 40 on or before the due date. Within the same time period, Respondent shall establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC), and remit to that escrow account funds equivalent to the amount of the contested Response Costs. Respondent shall simultaneously transmit a copy of both checks to the persons listed in Paragraph 40(b) above. Respondent shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which that party prevailed from the escrow funds plus interest within 20 calendar days after the dispute is resolved.

XVII. DISPUTE RESOLUTION

43. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

44. If Respondent objects to any U.S. EPA action taken pursuant to this Settlement Agreement, including billings for Response Costs, it shall notify U.S. EPA in writing of its objection(s) within 10 calendar days of such action, unless the objection(s) has/have been resolved informally. This written notice shall include a statement of the issues in dispute, the relevant facts upon which the dispute is based, all factual data, analysis or opinion supporting Respondent's position, and all supporting documentation on which such party relies. U.S. EPA shall provide its Statement of Position, including supporting documentation, no later than 10 calendar days after receipt of the written notice of dispute. In the event that these 10-day time periods for exchange of written documents may cause a delay in the work, they shall be shortened upon, and in accordance with, notice by U.S. EPA. The time periods for exchange of written documents relating to disputes over billings for response costs may be extended at the sole discretion of U.S. EPA. An administrative record of any dispute under this Section shall be maintained by U.S. EPA. The record shall include the written notification of such dispute, and the Statement of Position served pursuant to the preceding paragraph. Upon review of the administrative record, the Director of the Superfund Division, U.S. EPA Region 5, shall resolve the dispute consistent with the NCP and the terms of this Settlement Agreement.

45. Respondent's obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with U.S. EPA's decision, whichever occurs.

XVIII. FORCE MAJEURE

46. Respondent agrees to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Respondent, or of any entity controlled by Respondent, including but not limited to its contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondent's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

47. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondent shall notify U.S. EPA orally within 24 hours of when Respondent first knew that the event might cause a delay. Within 7 calendar days thereafter, Respondent shall provide to U.S. EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure* event if Respondent intends to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall be grounds for U.S. EPA to deny Respondent an extension of time for performance. Respondent shall have the burden of demonstrating by a preponderance of the evidence that the event is a force majeure, the delay is warranted under the circumstances, and best efforts were exercised to avoid and mitigate the effects of the delay.

48. If U.S. EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by U.S. EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If U.S. EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, U.S. EPA will notify Respondent in writing of its decision. If U.S. EPA agrees that the delay is attributable to a *force majeure* event, U.S. EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XIX. STIPULATED PENALTIES

49. Respondent shall be liable to U.S. EPA for stipulated penalties in the amounts set forth in Paragraphs 50 and 51 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVIII (*Force Majeure*). "Compliance" by Respondent shall include completion of the activities under this Settlement Agreement or any work plan or other plan approved under this Settlement Agreement identified below in

accordance with all applicable requirements of this Settlement Agreement within the specified time schedules established by and approved under this Settlement Agreement.

50. Compliance Milestone and Stipulated Penalty Amounts

a. Compliance Milestones Including Payments

i. Payment of Response Costs due 30 days after the Respondent's receipt of U.S. EPA's billing statement.

ii. Recording the Environmental Covenant within 90 calendar days of the later of U.S. EPA's or Illinois EPA's approval of the Environmental Covenant.

iii. Timely submit to U.S. EPA a draft map and a final revised map of the Uninvestigated Site Area in accordance with the Work Plan.

iv. Notice required by Paragraphs 22 (a) or 22 (b).

v. Provide a minimum of 72-hours advance notice prior to intrusive work in Uninvestigated Site Area as required in Paragraph 26.

vi. Failure to comply with the recorded Environmental Covenant/Institutional Control document described in Section X.

b. Stipulated Penalty Amounts – Milestones (Including Payments) The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 50 (a) (i), ii, or iii:

Violation Per Day	Period of Noncompliance
$500.00	1st through 14th day
$2,000.00	15th through 30th day
$5,000.00	31st day and beyond

c. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 50 (a) (iv), (v) or vi:

1st Violation- Per Day Penalty	Period of Noncompliance
$ 500.00	1st day
$ 1,000.00	2nd day
$ 1,500.00	3rd through 5th day
$ 3,500.00	6th through 15th
$ 7,500.00	16th day and beyond

2nd Violation- Per Day Penalty	Period of Noncompliance
$ 1,500.00	1st day
$ 2,500.00	2nd day
$ 3,500.00	3rd through 5th day
$ 5,000.00	6th through 15th
$ 10,000.00	16th day and beyond

3rd Violation or more - Per Day Penalty	Period of Noncompliance
$ 2,500.00	1st day
$ 4,000.00	2nd day
$ 7,500.00	3rd through 5th day
$ 12,500.00	6th through 15th
$ 20,000.00	16th day and beyond

51. Stipulated Penalty Amounts - Reports The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents pursuant to Paragraphs 20 and 21:

Violation Per Day	Period of Noncompliance
$250.00	1st through 14th day
$500.00	15th through 30th day
$3,000.00	31st day and beyond

52. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after U.S. EPA's receipt of such submission until the date that U.S. EPA notifies Respondent of any deficiency; and 2) with respect to a decision by the Director of the Superfund Division, Region 5, under Paragraph 44 of Section XVII (Dispute Resolution), during the period, if any, beginning on the 21st day after U.S. EPA submits its written statement of position until the date that the Director of the Superfund Division issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

53. Following U.S. EPA's determination that Respondent has failed to comply with a requirement of this Settlement Agreement, U.S. EPA will give Respondent written notification of the failure and describe the noncompliance. U.S. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether U.S. EPA has notified Respondent of a violation.

54. All penalties accruing under this Section shall be due and payable to U.S. EPA within 30 days of Respondent's receipt from U.S. EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XVII (Dispute Resolution).

Respondent shall make all payments required by this Section by official bank check made payable to "U.S. EPA Hazardous Substance Superfund." Each check, or a letter accompanying each check, shall identify the name and address of the party making payment, the Lindsay Light II OU 10 name, U.S. EPA Region 5, the Site/Spill ID Number 05YT, and, if any, the U.S. EPA docket number for this action, and shall be sent to:

U.S. Environmental Protection Agency
Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

and shall indicate that the payment is for stipulated penalties, and shall reference the name and address of the party making payment. At the time of payment, copies of check paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to the U.S. EPA as provided in Paragraph 40(b).

55. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Settlement Agreement.

56. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 20 days after the dispute is resolved by agreement or by receipt of U.S. EPA's decision.

57. If Respondent fails to pay stipulated penalties when due, U.S. EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 54. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of U.S. EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that U.S. EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Settlement Agreement. Should Respondent violate this Settlement Agreement or any portion hereof, U.S. EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. §9604, and/or may seek judicial enforcement of this Settlement Agreement pursuant to Section 106 of CERCLA, 42 U.S.C. §9606. Notwithstanding any other provision of this Section, U.S. EPA may, in its unreviewable discretion, waive in writing any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XX. COVENANT NOT TO SUE BY U.S. EPA

58. In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, U.S. EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Response Costs. This covenant not to sue shall take effect upon receipt by U.S. EPA of the Response Costs due under Section XVI (Payment of Response Costs) of this Settlement Agreement and any Interest or Stipulated Penalties due for failure to pay Response Costs as required by Sections XVI and XIX of this Settlement Agreement. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Settlement Agreement, including, but not limited to, payment of Response Costs pursuant to Section XVI. This covenant not to sue extends only to Respondent and does not extend to any other person.

XXI. RESERVATIONS OF RIGHTS BY U.S. EPA

59. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of U.S. EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement. U.S. EPA also reserves the right to take any other legal or equitable action as it deems appropriate and necessary, or to require the Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

60. The covenant not to sue set forth in Section XX above does not pertain to any matters other than those expressly identified therein. U.S. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

a. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;

b. liability for costs not included within the definition of Response Costs;

c. liability for performance of response action other than the Work;

d. criminal liability;

e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments; and

f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site.

XXII. COVENANT NOT TO SUE BY RESPONDENT

61. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Response Costs, or this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Illinois State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Site.

These covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 60 (b), (c), and (e) - (f), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

62. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XXIII. OTHER CLAIMS

63. By issuance of this Settlement Agreement, the United States and U.S. EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or U.S. EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

64. Except as expressly provided in Section XX (Covenant Not to Sue by U.S. EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not

limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

65. No action or decision by U.S. EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIV. CONTRIBUTION

66.

a. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and Response Costs.

b. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42. U.S.C. § 9613(f)(3)(B), pursuant to which the Respondent has, as of the Effective Date, resolved its liability to the United States for the Work and Response Costs.

c. Nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Section 113(f)(2)and (3), 42 U.S.C. § 9613(f)(2) and (3), to pursue any such persons to obtain additional response costs or response action, and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2).

XXV. INDEMNIFICATION

67. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement.

Neither Respondent nor any such contractor shall be considered an agent of the United States. The Federal Tort Claims Act (28 U.S.C. §§ 2671, 2680) provides coverage for injury or loss of property, or injury or death caused by the negligent or wrongful act or omission of an employee of U.S. EPA while acting within the scope of his or her employment, under circumstances where U.S. EPA, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.

68. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

69. Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXVI. MODIFICATIONS

70. The OSC may make modifications to any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by U.S. EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the parties.

71. If Respondent seeks permission to deviate from any approved work plan or schedule, Respondent's Project Coordinator shall submit a written request to U.S. EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 70.

72. No informal advice, guidance, suggestion, or comment by the OSC or other U.S. EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXVII. NOTICE OF COMPLETION OF WORK

73. When U.S. EPA determines, after U.S. EPA's review of the Final Report, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, *e.g.*, post-removal

site controls, payment of Response Costs, and record retention, U.S. EPA will provide written notice to Respondent. If U.S. EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the U.S. EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

XXVIII. NOTICES AND SUBMISSIONS

74. Whenever, under the terms of this Agreement, notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of this Agreement with respect to U.S. EPA and Respondent.

As to U.S. EPA:

Mary L. Fulghum
Cathleen M. Martwick
Associate Regional Counsel
U.S. EPA (C-14J)
77 W. Jackson Blvd.
Chicago, Illinois 60604

Verneta Simon, P.E.
On-Scene Coordinator
U.S. EPA (SE-5J)
77 W. Jackson Blvd.
Chicago, Illinois 60604

Gene Jablonowski
Project Manager
U.S. EPA (SR-6J)
77 W. Jackson Blvd.
Chicago, Illinois 60604

Vanessa Mbogo
Comptroller's Office
U.S. EPA (MF-10J)
77 W. Jackson Blvd.
Chicago, Illinois 60604

As to Respondent:

c/o RMW Streeterville LLC
350 W. Hubbard Street
Suite 300
Chicago, IL 60654
Attn: Donald M. Biernacki

Leo P. Dombrowski
Sanchez Daniels & Hoffman LLP
333 W. Wacker Drive, Suite 500
Chicago, Illinois 60606

XXIX. SEVERABILITY/INTEGRATION/EXHIBITS

75. If a court issues an order that invalidates any provision of this Settlement Agreement or finds that Respondent has sufficient cause not to comply with one or more provisions of this Settlement Agreement, Respondent shall remain bound to comply with all provisions of this Settlement Agreement not invalidated or determined to be subject to a sufficient cause defense by the court's order.

76. This Settlement Agreement and its Exhibits constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following Exhibits are incorporated into this Settlement Agreement:

Exhibits A-1 and A-2 Site Maps
Exhibit B Property Legal Description
Exhibit C Work Plan

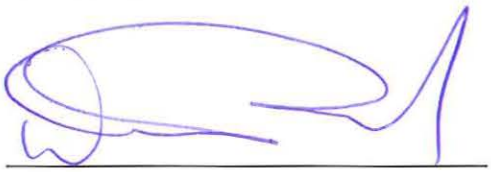
XXX. EFFECTIVE DATE

77. This Settlement Agreement shall be effective upon signature of this Settlement by the Director, Superfund Division, U.S. EPA Region 5.

The undersigned representative of Respondent certifies that s/he is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party s/he represent to this document.

Agreed this 11th day of January, 2016

For Respondent: **RMW STREETERVILLE, LLC**

By: 

(Print Name Clearly) Donald M. Biernacki

Title Authorized Representative

IN THE MATTER OF:

Lindsay Light II, OU 10
451 E. Grand/400 East Illinois/510 North Peshtigo
Chicago, Illinois

It is so ORDERED and Agreed this 14th day of January, 2016.

BY: _____
Richard C. Karl, Director
for Superfund Division
United States Environmental Protection Agency
Region 5

EXHIBIT A

SITE MAP

PUBLIC PARKING PARCEL

RESIDENTIAL PARKING PARCEL

FUTURE DEVELOPMENT PARCEL

GREMLEY & BIEDERMANN

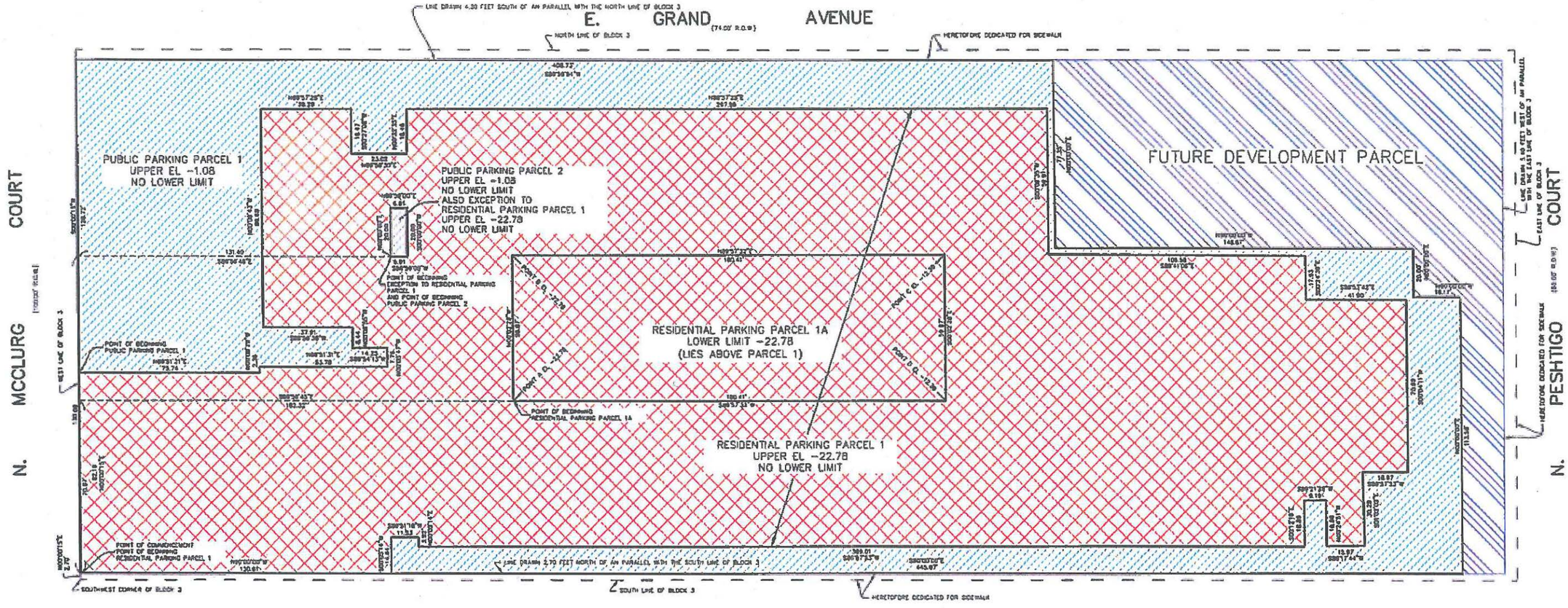
LICENSE NO. 184-002764
PROFESSIONAL LAND SURVEYORS
4303 NORTH ELSTON AVENUE, CHICAGO, IL 60630
TELEPHONE: (773) 685-5102 FAX: (773) 286-4184 EMAIL: INFO@PLCS-SURVEY.COM

EXHIBIT A-1

Plat of Survey

ParkView at River East Condominium

PARKING LEVEL P–4
UPPER LIMIT –22.78
NO LOWER LIMIT



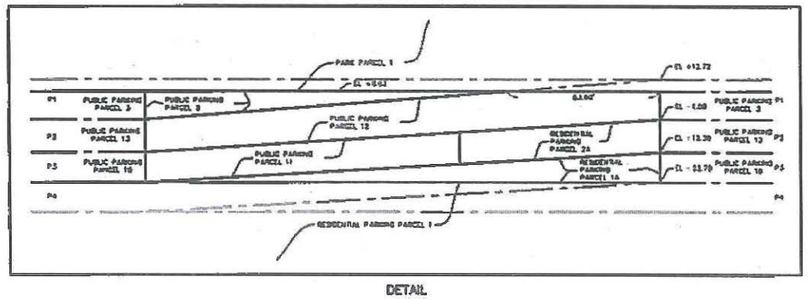
REVISED: MAY 22, 2008 [RJT]
REVISED: MAY 16, 2008 [RJT]
REVISED: MAY 13, 2008 [RJT]
REVISED: APRIL 29, 2008 [RJT]
REVISED: APRIL 23, 2008 [RJT]

GREMLEY & BIEDERMANN

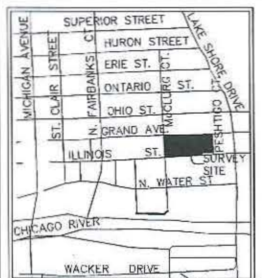
2007-09408-002 | SHEET 1

GRAPHIC SCALE

(IN FEET) 1" = 20'



DETAIL



VICINITY MAP – NOT TO SCALE

THE CITY OF CHICAGO BOARD OF UNDERGROUND INVOLVEMENT HAS BEEN REQUESTED FOR YOUR SURVEY. THE RESULTS TO DATE ARE INDICATED BELOW. AS A CONVENIENCE TO YOU THE UTILITY DATA IS REVIEWED AND ADDED TO THIS PLAT AS IT IS RECEIVED. THESE RECORDS ARE THEN FORWARDED TO YOU. PLEASE BE AWARE THAT NO OTHER COPY OF THIS INFORMATION IS RETAINED.

D.O.U. 2014-60870

I - INVOLVED, N - NOT INVOLVED, BLANK - NOT RECEIVED

- I 1. AT&T ILLINOIS
- I 2. AT&T LOCAL NETWORK SERVICES
- I 3. BUREAU OF ELECTRICITY
- I 4. CDOT - PROJECT DEVELOPMENT
- I 5. CDOT RED LIGHT CAMERAS
- I 6. BUREAU OF FORESTRY
- I 7. CDOT ENGINEERING
- I 8. CTA - TRAFFIC
- I 9. CTA - ENGINEERING
- I 10. RCN METRO OPTICAL NETWORKS - CHICAGO
- I 11. CHICAGO PARK DISTRICT
- N 12. COMED TRANSMISSION
- I 13. DEPARTMENT OF WATER MANAGEMENT - SEWER SECTION
- I 14. CDWM WATER SECTION CONSULTANT
- I 15. MCI
- I 16. M.W.R.D.
- I 17. PEOPLES GAS
- I 18. ADVOCENT COMMUNICATIONS
- I 19. COMCAST
- I 20. JCDECAUX NORTH AMERICA
- I 21. DIGITAL REALTY TRUST (LAKESIDE TECHNOLOGY CENTER)
- I 22. LEVEL 3 COMMUNICATIONS / LCN
- I 23. MIDWEST-HERVAL CHICAGO CORPORATION
- I 24. COMED - DISTRIBUTION
- I 25. CDOT - DIVISION OF ELECTRICAL OPERATIONS
- N 26. SUNESYS, LLC.
- N 27. SIDERA NETWORKS

EXHIBIT A-2

GREMLEY & BIEDERMANN

A DIVISION OF
PLCS Corporation
LICENSE NO. 184-005522

PROFESSIONAL LAND SURVEYORS

4535 NORTH ELSTON AVENUE, CHICAGO, IL 60630
TELEPHONE: (773) 685-5102 FAX: (773) 286-4184 EMAIL: INFO@PLCS-SURVEY.COM

PLAT OF SURVEY

BLOCK 3 (EXCEPT THAT PART THEREOF DEDICATED FOR SIDEWALK) IN CITYFRONT CENTER, BEING A RESUBDIVISION IN THE NORTH FRACTION OF SECTION 10, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 24, 1987 AS DOCUMENT 87106320, IN COOK COUNTY, ILLINOIS.

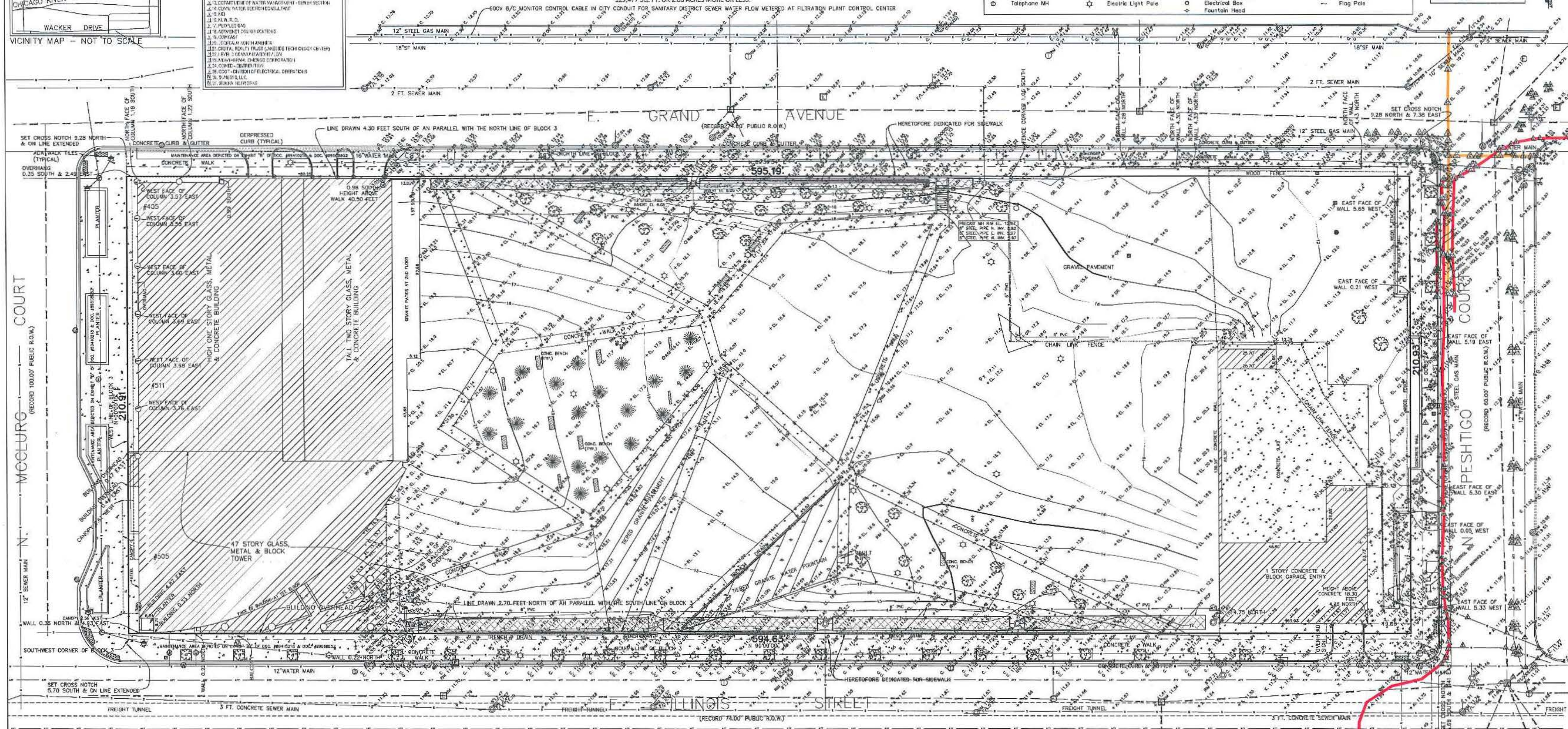
125,477 SQ. FT. OR 2.88 ACRES MORE OR LESS.

Legend:

- Storm MH
- Storm CB
- Storm Inlet
- Storm Inlet
- San MH
- San Storm Combo MH
- San Clean Out
- Water Valve Vault
- Water MH
- Water Buffalo Box
- Water Hand Hole
- Water Meter
- Water Fire Hydrant
- Telephone MH
- Telephone Vault
- Telephone Pedestal
- Public Telephone
- Combination Pedestal
- Utility Pole
- Guy Anchor
- Electric Manhole
- Electric MH
- Electric Vault
- Electric Hand Hole
- Electric Pad
- Electric Meter
- Electric Pedestal
- Electric Light Pole
- Electric Traffic Signal
- Electric Light Pole with Traffic Signal
- Electric Traffic Control Box
- Electric Traffic Vault
- Electric Ground Light
- Electric Mounted Wall Light
- Gas Buffalo Box
- Gas Hand Hole
- Gas Meter
- Gas Valve
- Gas MH
- Gas Vault
- Cable TV Pedestal
- Electrical Box
- Fountain Head
- Tree – Deciduous
- Tree – Evergreen
- Parking Meter
- Parking Pay Box
- Sign Post
- Mail Box
- Bumper Post
- Bike Rack
- Soil Boring
- Unclassified Manhole
- Auto Sprinkler
- Hose Connection
- Fire Alarm
- Flag Pole

GRAPHIC SCALE
20 0 10 20
(IN FEET)
1" = 20'

J.U.L.I.E. MARKS FOUND		J.U.L.I.E. LINES
△	ELECTIC	red
△	GAS	orange
△	COMCAST	red
△	AT&T	



ADDITIONAL WORK 8/18/15 #2015-21271 (BB)
REVISED JULY 14, 2015 PER ORDER #2015-21107 [RJT]
ADDITIONAL WORK ADDED JUNE 6, 2015 PER ORDER #2015-20931
RECERTIFIED AUGUST 25, 2014 PER JOB #2014-19813
BOARD OF UNDERGROUND ADDED AUGUST 6, 2014
REVISED MAY 14, 2014 ADD UNDERSIDE ELEV PG2 [BSS]
REVISED MAY 2, 2014 ADD TREE SZ/CTRS [BSS]

ORDERED BY: RELATED MIDWEST	CHECKED: FG	DRAWN: BSS
ADDRESS: PARKVIEW EAST - CHICAGO, IL		

GREMLEY & BIEDERMANN
A DIVISION OF PLCS, CORPORATION
LICENSE NO. 184-005522
PROFESSIONAL LAND SURVEYORS
4535 NORTH ELSTON AVENUE, CHICAGO, IL 60630
TELEPHONE: (773) 685-5102 FAX: (773) 286-4184 EMAIL: INFO@PLCS-SURVEY.COM

ORDER NO.	DATE: APRIL 30, 2014 / SCALE: 1 INCH = 20 FEET	PAGE NO.
2014-19179-001		1 OF 2

G:\CAD\2014\2014-19179\2014-19179-001.dwg

ELEVATIONS SHOWN HEREON ARE REFERENCED TO CHICAGO CITY DATUM (C.C.D.)

BENCHMARK #4358
ELEVATION = 13.652 C.C.D.

LOCATION: SW COR. N. LAKE SHORE DR. & E. OHIO ST. MARK CUT NEAR NW COR. CONC. LEDGE, N. SIDE MULTI-STORY BRICK BLDG. 14.1' W. OF NE COR. ABOUT S. LINE E. OHIO ST.

REVISED: 8/26/15 PER #2015-21271 [RJT]

A.=ASPHALT ELEVATION
GR.=GRAVEL ELEVATION
FFE.=FINISHED FLOOR ELEVATION
W.=WALK ELEVATION
X.=CONCRETE ELEVATION
TOE.=TOP OF SLOPE ELEVATION
TOB.=TOP OF BANK ELEVATION
C.=CURB ELEVATION
G.=GUTTER ELEVATION
EL.=ELEVATION

I.=INVERT
F/L.=FLOW LINE
TP.=TOP OF PIPE
TV.=TOP OF VALVE
BOT.=BOTTOM
NVP=NO VISIBLE PIPE

SURVEY NOTES:

PROPERTY APPEARS IN "OTHER AREAS" ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP COOK COUNTY, ILLINOIS, MAP NO. 17031C0438J, EFFECTIVE DATE AUGUST 19, 2008.

Note R. & M. denotes Record and Measured distances respectively.

Distances are marked in feet and decimal parts thereof. Compare all points BEFORE building by same and at once report any differences BEFORE damage is done.

For easements, building lines and other restrictions not shown on survey plat refer to your abstract, deed, contract, title policy and local building line regulations.

NO dimensions shall be assumed by scale measurement upon this plat.

Unless otherwise noted hereon the Bearing Basis, Elevation Datum and Coordinate Datum if used is ASSUMED.

SURVEY NOTES:

UTILITY WARNING

The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes NO guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

Call DIGGER - (312) 744-7000 within the City of Chicago.

Outside of the City of Chicago call J.U.L.I.E. (800) 892-0123 prior to construction or excavation.

State of Illinois)
County of Cook)ss

We, GREMLEY & BIEDERMANN, INC. hereby certify that we have surveyed the above described property and that the plat hereon drawn is a correct representation of said survey corrected to a temperature of 62° Fahrenheit.

Field measurements completed on AUGUST 18, 2015.

Signed on Sept. 16, 2015

By: [signature]

Professional Illinois Land Surveyor No. 2802
My license expires November 30, 2016
This professional service conforms to the current Illinois minimum standards for a boundary survey.

ROBERT G. BIEDERMANN 2802 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS CHICAGO, ILLINOIS

EXHIBIT B

PROPERTY LEGAL DESCRIPTION

THAT PART OF BLOCK 3 IN CITYFRONT CENTER, BEING A RESUBDIVISION IN THE NORTH FRACTION OF SECTION 10, TOWNSHIP 39 NORTH, RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 24, 1987 AS DOCUMENT 87106320, DESCRIBED AS FOLLOWS: COMMENCING AT THE POINT OF INTERSECTION OF THE WEST LINE OF SAID BLOCK 3 WITH A LINE DRAWN 2.70 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID BLOCK 3; THENCE NORTH 00°00'15" EAST, ALONG THE WEST LINE THEREOF, 210.91 FEET; THENCE NORTH 89°59'54" EAST, 408.73 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 00°00'00" WEST, 77.35 FEET; THENCE SOUTH 90°00'00" EAST, 148.67 FEET; THENCE SOUTH 00°00'00" WEST, 20.00 FEET; THENCE SOUTH 90°00'00" EAST, 19.17 FEET; THENCE SOUTH 00°00'00" WEST, 113.58 FEET TO ITS POINT OF INTERSECTION WITH A LINE DRAWN 2.70 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID BLOCK 3; THENCE SOUTH 90°00'00" EAST, ALONG SAID PARALLEL LINE, 18.05 FEET TO THE POINT OF INTERSECTION OF A LINE DRAWN 2.70 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID BLOCK 3 WITH A LINE DRAWN 5.40 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF SAID BLOCK 3; THENCE NORTH 00°09'24" EAST, ALONG THE LAST MENTIONED PARALLEL LINE, 210.93 FEET TO ITS POINT OF INTERSECTION WITH A LINE DRAWN 4.30 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID BLOCK 3; THENCE SOUTH 89°59'54" WEST, ALONG THE LAST MENTIONED PARALLEL LINE, 186.46 FEET TO THE POINT OF BEGINNING IN COOK COUNTY, ILLINOIS.

P.I.N. 17-10-218-013-0000

EXHIBIT C

APPROVED WORK PLAN

AECOM
100 South Wacker Drive, Ste 500
Chicago, IL 60606

312-939-1000 tel
312-939-4198 fax

December 18, 2015
Revised January 6, 2016

Ms. Verneta Simon
U. S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd., SE-5J
Chicago, Illinois 60604

Re: Work Plan for Investigation and Removal of Radiologically-Contaminated Fill, 510 North Peshtigo Court, Chicago, Illinois – AECOM Project No. 60442737

Dear Ms. Simon:

Enclosed please find the Work Plan for the above-referenced site for your review and comment. This plan includes the revisions requested by the USEPA dated December 4 and 22, 2015 as well as those of January 6, 2016. Please note that this work plan is based on the original work plan previously approved for work on the former Kraft building site. We also will be providing two hard copies for your use and distribution.

Please contact us with any questions you have regarding this letter or the reported results.

Regards,

Andrew Kozak
Environmental Engineer

Steven C. Kornder, Ph.D.
Senior Project Geoscientist

cc: D. Biernacki, RMW Streeterville, LLC.
L. Koch. RMW Streeterville, LLC.
L. Dombrowski, Sanchez Daniels & Hoffman LLP

Prepared for:
510 North Peshtigo Court
Chicago, IL

Work Plan for Investigation and Removal of Radiologically-Contaminated Fill at 510 North Peshtigo Court

AECOM
December 2015 January 2016
Project No.: 60442737

Table of Contents

FIGURES

APPENDICES

WORK PLAN FOR INVESTIGATION AND REMOVAL OF RADIOLOGICALLY-CONTAMINATED SOIL AT 510 NORTH PESHTIGO COURT

1.0 INTRODUCTION

This Work Plan was developed for the investigation and removal of radiologically-contaminated fill at 510 North Peshtigo Court (Site) in Chicago, Illinois. The Site (included with the red outlined area on Figure 1) is bounded by East Illinois Street, East Grand Avenue, North Peshtigo Court, and an underground parking garage. The Site is currently referred to as "Part of Parcel 3 – Part of Lot 3" on Figure 1. The Site consists of a single irregularly shaped parcel on the easternmost side of the block covering approximately 0.5 acres. The parcel contains a 0.2 acre gravel lot used as a dog park as well as an unused dirt and grass area. The plat of survey for the block showing the Site, the existing park, and existing structures is included in Appendix A.

The block was previously covered by the former Kraft building and associated parking lots. A Work Plan for the entire block was approved by the United States Environmental Protection Agency (USEPA) on December 5, 2005. With the exception of the current Site area, the implementation of the former Work Plan resulted in the complete radiological surveying of the urban fill and remediation of the contaminated fill discovered during the investigation. The USEPA acknowledged the completion of these activities with the issuance of a Completion Letter on October 17, 2007 (refer to Appendix B).

With the approval of the USEPA, this Work Plan is an updated version of the original developed for the former Kraft building and parking lot area. As with the original Work Plan, a standalone Quality Assurance Project Plan (QAPP) is not being developed since this is a non-complex removal. Therefore, the standard operating procedures and plans typically found in the QAPP have been included with this Work Plan. The Site is being investigated as part of a proposed residential development. Current plans call for construction of a 68-story residential tower and upgrades to the existing 1.7 acre park. The Work Plan describes the:

- Procedures for managing the removal of radiologically-contaminated fill above the 7.1 picocuries per gram (pCi/g) removal action level.

- Survey methods proposed for identifying potentially radiologically-contaminated materials during the excavation and construction activities.

- Closure Report and Documentation of the work activities performed relating to the removal of radiologically-contaminated soil including health and safety procedures.

Following review and approval of this Work Plan by USEPA, activities will begin with one of two scenarios described herein. The first scenario consists of screening that will occur concurrently with excavation as necessary for the construction of the residential high-rise and connection to the adjacent parking garage. The second scenario consists of the anticipated screening of essentially 100% of the fill material within the Site down to native soil. To accomplish this screening, the second scenario will likely include removal of adjacent sidewalks to allow for a 1:1 slope into the Site. Ultimately, whether the second scenario is implemented depends on the negotiations with the USEPA for reimbursement of the significantly higher costs associated with the screening and expanded excavation necessary to completely screen the urban fill in 18-inch lifts down to native soil.

Screening activities will be directed toward the identification of radiological contamination within the urban fill. Radiologically-contaminated material that is excavated will be transported to a disposal facility licensed and approved to dispose of this material. After surveying activities and removal of contaminated material required by this Work Plan has been completed, a report will be prepared documenting the removal activities. The USEPA will be requested to prepare a "Certification of Completion Letter" acknowledging the completion of the investigation and removal of contaminated fill material. This "Certification of Completion Letter" is requested to acknowledge that conditions at the site are protective of human health and the environment and, if applicable, that no further remediation is necessary.

2.0 BACKGROUND

2.1 Site Location

The Site is located in an area of reclaimed land where fill material was placed along the Lake Michigan shoreline starting in the 1860's. This area of Chicago is commonly referred to as Streeterville. Recent developments in the Streeterville area of Chicago encountered radiologically-contaminated fill. These near surface fills are generally 8-12 feet thick and are primarily sandy urban fill that contains some soil along with bricks, mortar, broken concrete, wood and cinders.

The radiologically-contaminated materials were originally generated as waste by the former Lindsay Light thorium gas mantle production facilities which used and produced thorium nitrate in its manufacturing process. During construction and utility activities, thorium contaminated materials have been identified in fill materials throughout Streeterville. The Lindsay Light manufacturing operations were located at 22 West Hubbard Street, 161 East Grand Avenue, and 316 East Illinois Street in Chicago, Illinois. These manufacturing operations were conducted from the early 1900s through the early 1930s. The thorium contamination typically consists of elevated concentrations of thorium and associated decay products in the fill near the former Lindsay Light facilities. In addition, asbestos containing lantern mantle string ties have also been identified in fill materials. USEPA has directed the investigation and cleanup of radiologically-contaminated fill at a number of Streeterville properties. Due to the presence of thorium contamination at the parcels adjacent to and in the same block as the subject project and documented thorium cleanups at other properties in the Streeterville area, screening for thorium-contaminated fill is warranted where excavation work is planned. Furthermore, the USEPA, which has oversight authority for radiologically- contaminated CERCLA sites, requests that radiological surveys be completed prior to and during site development within the area designated and commonly referred to as the Streeterville Thorium Investigation Area.

Like most properties within the Streeterville Thorium Investigation Area, this Site has undergone more than one phase of redevelopment. Redevelop of the properties generally results in demolition debris and excavation spoil (mainly urban fill) that were reused as fill on-site or in the past at other locations. The construction of high-rise buildings built on deep caissons has also generated soil fill that was derived from the native sand and clay formations. As indicated previously, thorium contaminated wastes from the Lindsay Light operations were apparently used as fill on properties in Streeterville. As properties were redeveloped, the thorium contaminated fill materials were unknowingly mixed with other fill materials and reused on adjacent properties. Since the filling history of Streeterville properties is often complex and/or unknown, distinguishing between different fill materials and native soil during

these investigations is important to understanding the Site. As such, definitions for several terms used within the work plan are provided below.

Radiologically-contaminated Fill – material exhibiting thorium contamination exceeding the Lindsay Light Thorium Removal Action Level of 7.1 pCi/g for radium-228 plus radium-226.

Soil (earth) -sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks, and which may or may not contain organic matter. (ASTM D653-I4 Standard Terminology Relating to Soil, Rock, and Contained Fluids)

- Subsoil: 1) soil below a subgrade of fill; or 2) that part of a soil profile occurring below the "A" horizon. (ASTM D653-14 Standard Terminology Relating to Soil, Rock, and Contained Fluids)

- Topsoil: as used for landscaping purposes, usually the original surface layer of grassland or cultivated land. It does not generally include soil from peat lands or other special areas, such as land disturbed by industrial activity. Topsoil is usually a darker shade of brown, grey, or red than the subsoil that lies immediately beneath it, because it contains organic matter intimately mixed with the mineral matter. Topsoil tends to be more friable and pervious than inorganic soils. (ASTM Standard D5268-13 Standard Specification for Topsoil Used for Landscaping Purposes).

Demolition or General Construction Debris - non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads, limited to the following: soil, wall coverings, reclaimed asphalt pavement, rock, plaster, glass, non-hazardous painted wood, drywall, plastics, non-hazardous treated wood, plumbing fixtures, electrical wiring, non-hazardous coated wood, non-asbestos insulation, bricks, wood products, roofing shingles, concrete, and general roof coverings. (Source: http://www.epa.illinois.gov/topics/waste-management/waste-disposal/household-hazardous-waste/disposal/index)

Native Materials - soil, sand, or rock that was present prior to the application of fill. This refers to in-situ (undisturbed) native materials. In Streeterville, screening for thorium contamination is not required for in-situ native materials. However, screening for thorium may be required for native materials that were derived from other properties (or dredged from the river or lake) unless the origin of the material is known.

Fill - man-made deposits of natural soils or rock products and waste materials (ASTM D653-14 Standard Terminology Relating to Soil, Rock, and Contained Fluids). Fill components may include a variety of identifiable materials including brick, cement, wood, wood ash, coal, coal ash, boiler ash, clunkers, other ash, asphalt, glass, plastic, metal, inert, demolition debris, and roadside ditch materials.

- Urban Fill – In this document urban fill is used to describe a subset of fill that contains both natural (soil, sand and stone) and man-made (brick, cement, wood, wood ash, coal, coal ash,

boiler ash, asphalt, glass, etc.) materials. Thorium contamination is usually found in urban fill material. The urban fill term is used to differentiate this material from fill composed natural materials like soil, sand and rock. Fill composed predominantly of soil will be call "soil fill".

- Clean Fill - clean construction or clean demolition debris is defined as uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement, or soil ~~dirt~~ or sand generated from construction or demolition activities. (Source: http://www.epa.illinois.gov/topics/waste-management/waste- disposal/household-hazardous-waste/disposal/index).

2.2 Site History

The City block formerly consisted of two parcels. Parcel 21 occupied the western portion of the block while Parcel K occupied the balance of the block to the east (refer to Figure 2). The Site is located on former Parcel K. STS (now part of AECOM) conducted Phase I Environmental Site Assessments (Phase I ESAs) at Parcels 21 and K, which are summarized in STS's reports dated April 4 and April, 12, 2002, respectively. The Phase I ESAs included review of Sanborn Fire Insurance Maps dating from 1891, 1903, 1906, 1927, 1950, 1975 and 1988. Historic site use observed in the Sanborn maps is summarized below.

The Site was used as an open lumber yard and mill works facility between 1891 and 1906; as vacant land with a railroad track (spur) crossing the central portion of the Site in 1927. Parcel K was developed in 1937 with a 9-story masonry building (with a one-level basement) by Kraft Cheese Company for use as a cheese and salad dressing factory and cold storage warehouse. The building was used as office space by the City of Chicago from 1978 through 2000 and was then demolished in 2003. From 2003 to 2006, Parcel K has been predominantly utilized as a parking lot with a landscaped area at the eastern boundary. In 2007, the existing building structures were built on former Parcel 21 and the 4-level underground parking garage was constructed on the majority of parcel K. The property boundaries were also redrawn with the building structures and parking garage becoming Parcel 1 and undeveloped approximately 0.5 acre portion becoming Parcel 2. Major portions of Parcel 2 lie within the boundaries of the former Kraft building's foundation walls. For the upcoming Site development, Parcel 2 was renamed as "Part of Parcel 3 – Part of Lot 3" as shown on Figure 1.

2.3 Site Lithology and Groundwater Conditions

Borings installed in May of 2005 for the down-hole survey (refer to Section 2.6) outside of former building foundation on Parcel K are consistent with the earlier site information. The 2005 borings indicate about 6-inches of asphalt and gravel base course underlain by 8.5 to 14 feet of urban fill (an average urban fill thickness is about 10 feet). Borings installed in 2005 within the former foundation indicated 10 to 15 feet

of debris, which was composed of crushed brick and concrete characteristic of demolition debris from the former Kraft building. Groundwater was encountered at a depth of 10 feet bgs in both the 1992 and 2005 studies.

2.4 Radiological Walk-Over Surveys

The surface of the former parking lots in Parcels 21 and K were surveyed over a three-day period in September 2000 by STS. Representatives from the USEPA were present during the majority of the survey field time and conducted their own walkover survey. The STS walkover survey consisted of two components, a gamma measurement on a 5-meter grid and a gamma scan for elevated readings within each 5-meter grid cell (STS, November 2000). Elevated gamma readings were defined as readings that exceeded the general background values by a factor of two or more. Background values for the site using a Ludlum 2221 meter with a Ludlum 44-10 2 x 2-inch NaI probe ranged from 4,650 to 6,800 counts per minute (cpm). The North Lot, located in Parcel K did not exhibit an area with distinct indications of radiological contamination.

In June of 2003 URS Corporation (URS, now part of AECOM) conducted gamma radiation surveys and radiological fill sampling at the Site for the presence of elevated levels of radioactive materials (URS, July 2003). The area included the former exterior North Lot (Parcel K) adjacent to the Kraft Building where the dog park is currently located and the basement floor within the building. Surveys were performed using a Ludlum Model 2221 with either a 3 x 3-inch NaI probe or a Ludlum Model 2350-1 data logger coupled with a Ludlum Model 44-10 2 x 2-inch NaI detector. The parking lot survey utilized a 10-meter grid with readings taken within 1-meter sub-grids (100 readings per 10-meter grid). Results of the survey indicated that measurements from the North Parking Lot in Parcel K were all less than 2-times the background level criterion.

URS also used a direct-push hydraulic rig (Geoprobe™) to collect fill or soil samples within 4-feet of ground surface for total radium analysis. Ten samples were obtained from the parking lot during the June 2003 URS survey. Five of the samples were obtained from the fill pile adjacent to the former Kraft building, while the remaining five samples were spaced evenly across the North Lot since the surface survey did not identify elevated gamma readings.

The URS fill analysis did not detect total radium at levels in excess of the USEPA removal action level of 7.1 pCi/g total radium. In fact, except for URS sample B1, the fill sample results were less than the USEPA background for total radium (USEPA has established background equal to 2.1 pCi/g total radium for Chicago). The result for sample B1 (2.7 pCi/g total radium) was only slightly above the background level. Thus, the surface survey and fill sampling conducted by URS in the North Lot did not observe

readings that would be characteristic of radiological contamination. However, in correspondence dated August 22, 2003, the USEPA indicated that the results of the surface gamma survey and the fill analysis did not conclusively rule out the presence of radiologically-contaminated material since surface obstruction (asphalt pavement) limited the extent of the surface survey and fill samples were not collected from the full depth of the underlying fill material.

2.4.1 Former Kraft Building Basement Survey

As mentioned above, in June 2003 URS (URS, July 2003) conducted a survey of the basement floor within the former Kraft building prior to demolition. The grid spacing within the basement utilized the existing support columns that were spaced at approximately a 6-meter interval. The 6-meter grid was further subdivided into 2 X 2 meter sub-grids with the gamma measurements recorded at the center of each grid. The majority of the basement floor survey readings were reported to be less than 2-times background. The areas with survey readings greater than 2-times background were either ceramic tiled or in the vicinity of stored ceramic tiles. According to the report, tiles similar to those found in the building have generally been found to contain levels of natural radioactivity consistent with the elevated readings found in the basement. Thus, no indications of radiologically-contaminated material beneath the basement floor were detected by the URS survey, although the basement floor potentially could inhibit (shield) low-level radiologically-contaminated material from being detected.

2.5 Building Demolition

In late 2003, a former owner and developer of the property demolished the aboveground portions of the former Kraft building. The subsurface portions of the basement (i.e., walls and floor) were left in- place. The basement floor slab was broken up, but left in-place, to prevent water from being retained within the former foundation. The inorganic demolition debris (i.e., concrete, brick, etc.) from the building was used to fill the basement foundation. The demolition debris was covered with a gravel base course, graded and surfaced with asphalt to allow utilization of the area as a parking lot.

The demolition debris utilized for fill within the former foundation did not contain fill material derived from other portions of the property or adjacent sites that could potentially contain radiologically-contaminated material. Thus, it is not necessary to conduct radiological screening of the debris within the former foundation during excavation activities. However, since the former Kraft building was built in 1937, it has not been confirmed conclusively whether fill, which may be radiologically-contaminated, is present beneath the basement floor. Although, the basement floor survey (URS, July 2003) indicated no evidence of radiological-contamination, the basement floor could have shielded gamma emissions. Therefore, it is anticipated that visual verification of the absence of urban fill material (and radiological surveying if urban

fill material is present) beneath the basement foundation will be necessary if removal of the former basement slab/foundation is required. When AECOM pursues visual verification then AECOM shall immediately contact USEPA so USEPA can also conduct visual verification.

2.6 2005 Down-hole Project Scope

Results of the previous surface gamma surveys of Parcels K and 21 were used to develop an approach for a down-hole radiation survey. A copy of the screening work plan (STS, May 2005) was submitted to the USEPA for review prior the initiation of the field activities. The screening plan proposed to evaluate the potential presence of radiological contamination at eighteen (18) boring locations, five (5) of which were at locations within the current Site. Three (3) of the borings (B-16, B-18 and B-20) were completed within the footprint of the former Kraft building, while two (2) were located (B-13 and DH-4) just west of the former building foundation (refer to Figure 2 in Appendix C). A copy of the down-hole screening results and approximate boring locations is provided in Table 1 in Appendix C.

The down-hole radiation surveys for the soil borings were conducted between May 18 and June 10, 2005. The USEPA was present and observed the installation of the boreholes and down-hole gamma surveying. All borings were drilled with a nominal 4.25-inch diameter hollow stem auger. A 3-inch diameter Schedule 40 PVC casing was installed in each hole, and gamma readings were taken in 6-inch increments extending into the native soil. The gamma logging was conducted with a Ludlum 2221 and a 2 x 2 inch NaI probe. The probe was equipped with a 1-inch thick lead end cap and a ¼-inch lead ring at the lower end of the probe to minimize the influence of adjacent and deeper radioactive materials on the gamma readings (i.e., maximum lateral sensitivity in the survey).

In general, the 2005 borings installed outside of former building foundation indicated that the site consisted of about 6" of asphalt and gravel base course followed by between 8.5 to 14 feet of urban fill (average of about 10 feet of urban fill material), while borings within the former foundation indicated 10 to 15 feet of fill dominated by crushed brick and concrete characteristic of demolition debris from the former Kraft building. Table 1 in Appendix C presents a summary of the maximum gamma reading observed for each boring along with the corresponding depth at which the maximum value was recorded. The borings all indicated gamma readings below 7,633 counts per 30-seconds (instrument value equivalent to the USEPA limit of 7.1 pCi/g). Thus, there were no indications of contaminated fill. The complete list of the down-hole gamma surveys readings for each boring are presented in section D-1 of the original 2005 Work Plan.

2.7 2015 Environmental Survey

Radiation surveying was provided by AECOM on July 1 and 2, 2015 for 10 environmental borings performed by Pioneer Environmental Services, LLC. Surveying was performed on spoil from 9 environmental borings and the drilling spoil from one monitoring well installed at location B-8. The complete list of the gamma surveys readings for each boring are presented in Appendix D. Based on the gamma readings, there was no indication of the potential presence of contaminated fill.

Spoil and samples from each of the 2015 borings were surveyed for radiological contaminants. Based on historical drawings for the building footprint, the majority of the borings were located within the former Kraft building. Information for the demolition also indicated that the former basement slab was left in place and backfilled with demolition debris from the building, which the USEPA has agreed does not require radiological screening. Based on outline of the former building from drawings and the refusal encountered at a majority of the borings (i.e., the borings did not penetrate the former basement slab), only borings B-1 and B-6 appeared to be located outside of the former building foundation. The depth of urban fill at borings B-1 and B-6 was 15 and 10 feet, respectively. Boring B-1 is located within an area previously gamma screened during the original 2006 project. Boring B-1 is also located in close proximity to the garage wall. Thus, the deeper depth of fill at B-1 is attributed to excavation and backfilling of previously surveyed fill associated with the garage wall construction.

3.0 PROPOSED WORK ACTIVITIES

3.1 Scenario 1 - Construction Excavation Screening Only

Scenario 1 includes gamma screening during construction excavation activities that require the removal or excavation of fill that was not previously screened. Screening of demolition debris contained within the foundation of the former Kraft facility, however, is not required as described in Section 3.3.5 below. The activities will include probing for caissons, the mass excavation of fill necessary for construction of the foundations and elevator pits, as well as the installation of utilities. Under Scenario 1, it is anticipated that some urban fill material at the Site will not be excavated, and therefore will not be screened for the potential presence of radiological materials. Figure 3 is a draft drawing of the expected excavation depths for Site construction. It is anticipated that a majority of the fill that will not be screened will be in the northwest corner of the Site. It is not possible to accurately indicate the location of this material at this time because the depth of fill is not accurately known and the final construction depths may change. As such, the documentation produced during this phase will also include a drawing(s) indicating the areas of the unscreened urban fill that is intended to remain onsite. If radiologically-contaminated fill is discovered during screening, it will be remediated as described in the Methods Section 4.0 below.

3.2 Scenario 2 - 100% Excavation and Screening of Site

Scenario 2 will include excavation and the anticipated screening of 100% of the Site fill material down to the depth of native soils. Screening of demolition debris contained within the foundation of the former Kraft facility, however, it is not required as described in Section 3.3.5 below. Based on previous drilling investigations, native soils are encountered between 10 and 15 feet bgs. To perform this work safely and without the use of sheeting, portions of the sidewalks on the north and east edges of the site (approximately 12 foot wide) will be removed to allow for the walls of the site excavation to be sloped at approximately 1:1 ratio until native soils are encountered. All fill removed from underneath the sidewalks will be included in the radiation screening. If radiologically-contaminated fill is discovered during screening, it will be remediated as described in the Methods Section 4.0 below.

3.3 Activities to be performed under Either Scenario 1 or 2

The following general activities will be performed under either scenario.

3.3.1 Site Excavation and/or Grading

Portions of the Site will be excavated and/or graded periodically during the construction activities. It is important to note that gamma screening applies to fill and that screening of native soils will not be performed. Fill materials and/or soil that were brought to the Site to construct the park after the remediation efforts were completed are also excluded from further screening. Additionally, once a walk-over gamma survey is performed of a specific area, that area will not be surveyed again until an additional depth of 18-inches is excavated. Gamma walk-over surveying should be performed until native materials are encountered and, assumptions as to the depth to native materials should not be made.

Site excavation or grading screening will involve the surveying for radiologically-contaminated fill that, because of fill thickness, may have shielded the presence of a radiologically-contaminated soil during previous walk-over surveys. Walk-over surveys will be performed as excavation proceeds in the areas where the fill is in excess of 18-inches thick in accordance with Section 5.7 of SOP-210 (Appendix E), and until native materials are encountered. If identified, contaminated fill will be removed to levels below the removal action level. Grading/excavation will be limited to 18-inches or less between surveys.

Former building foundations or buildings with basements within the fill may require gamma screening. If discovered during the grading/excavation process, the potential presence of radiologically-contaminated fill materials below the floor slab or basement floor and fill material within the basement will be investigated (this is not meant to include the demolition debris within the former Kraft building foundation since it was derived from demolition of the Kraft building in 2003). Excluding the former Kraft building foundation, fill material within the basement structures will be surveyed using methods similar to those used for the excavation process (i.e., investigation in maximum 18-inch lifts through the full thickness of the basement fill).

Basement floor slabs, including the former Kraft building, will be investigated via potholing to determine if fill is present below the floor slab. If these potholing activities do not indicate the presence of fill beneath the slab and removal of the slab is not required for construction, then USEPA will be consulted to confirm that it is not necessary to completely remove these slabs for fill monitoring purposes. For Scenario 2, if fill is documented below the floor slabs, the method of investigation will consist of the removal of the floor, AECOM will then conduct a walk-over survey. The discovery and subsequent investigation of such structures will be included within the closure report for the Site.

3.3.2 Utilities and Grade Beams

The installation of utilities and grade beams will involve the installation of trench like excavations (less extensive than those of Section 3.3.1). These installations or excavations will likely occur prior to the excavation/grading and subsequent construction phases. Utility and grade beam excavations will be screened for the presence of radiologically-contaminated material when these activities are proposed for areas containing fill material which has not been previously surveyed. These surveys will be conducted in 18-inch lifts until the final depth of excavation is reached.

The ground surface will be surveyed for elevated gamma radiation prior to beginning excavation. Surveys will use a Ludlum 2221 and 2 x 2 inch NaI probe. The background gamma count will be recorded. Screening of the utility trenches and test pits may include one or more of the following survey efforts: survey of the excavation walls and floor, survey of the excavation spoil pile, or survey of the excavated fill while still in the excavator bucket.

Excavation will proceed in lifts not to exceed 18-inches per lift. The excavation walls and floor will be surveyed at each 18-inch lift, if the excavation can be entered safely or the probe can be suspended into the excavation via a longer cable. In the event the excavation is of such a dimension so as to preclude safe access to survey the walls and floor, surveys will be done of material in the excavator bucket and/or spoil pile to characterize the in-place material. If elevated gamma radiation measurements are noted, equal to or exceeding twice the background gamma count, the excavation will proceed in thinner lifts, 6 to 12 inches. The excavated fill will be surveyed in the excavator bucket before being added to the spoil pile.

If radiologically-contaminated materials are identified, contaminated fill within the Site property boundaries will be removed to levels below the removal action level. Areas containing contaminated fill above the 7.1 pCi/g removal action level will be remediated until they are below the 7.1 pCi/g action level, and remain designated as Exclusion Zones until the area is verified by USEPA. Work within a utility installation area designated as an Exclusion Zone will require appropriate personal protective equipment (PPE) and personal air monitoring as described in Section 5.4. Personnel entering Exclusion Zones must be 40-hour health and safety trained. All equipment and personnel that enter an Exclusion Zone will be frisked clean upon leaving the area.

3.3.3 Caissons

Installation areas for drilled foundation will generally be pre-screened (probed) in advance of the actual installation utilizing an excavator and the procedure outlined for utilities (Section 3.3.2). However, drilled foundations may be installed in or through the urban fill material without pre-screening. Spoil from drilled foundations will be screened for the presence of radiological contamination when the drilling activity is proposed for an area containing unscreened urban fill material. Radiological surveying will be limited to the fill materials. Native soil excavation and the associated spoil will not be surveyed for radioactivity. Urban fill spoil material exhibiting a radiological contamination above the 7.1 pCi/g removal action level will be managed for disposal according to Section 4.3. The excavation of radiologically-contaminated material to levels below the removal action level will not occur during the drilling phase, but during subsequent mass excavation activities.

3.3.4 Foundations

Foundation excavations will be screened for the presence of radiologically-contaminated material if the excavation activities are proposed for areas containing fill materials. These surveys will be conducted following the methodology for excavation of apparently clean fill (i.e., below the removal action level) in Sections 3.3.2. Excavations will be limited to not more than 18-inches between surveys. (Note that the 18-inch limit will not apply to caissons and/or drilled foundation elements due to the construction methods for such features. Similarly, spoil will be surveyed at the surface for excavations that, due to the nature of the construction, are unsafe to enter.)

If radiologically-contaminated materials are identified, contaminated fill within the Site property boundaries will be removed to clean limits. Areas containing contaminated fill above the 7.1 pCi/g removal action level will be remediated until they are below the 7.1 pCi/g removal action level, and remain designated as Exclusion Zones until the area is verified by USEPA. Work within a utility installation area designated as an Exclusion Zone will require appropriate personal protective equipment (PPE) and personal air monitoring as described in Section 5.4. Personnel entering Exclusion Zones must be 40-hour health and safety trained. All equipment and personnel that enter an Exclusion Zone will be frisked clean upon leaving the area.

3.3.5 Former Kraft Basement Foundation

As described in Section 2.5, in late 2003, the above ground portions of the former Kraft building were demolished. The subsurface portions of the basement (i.e., walls and floor) were left in-place, but the

floor slab broken up to prevent water from being retained within the former foundation. The demolition debris (brick and concrete) from the Kraft building was utilized as fill within the former foundation. As such, this debris does not contain urban fill material derived from other portions of the property or adjacent sites that could potentially contain radiologically-contaminated material. Thus, radiological screening is not proposed for the asphalt paving, sub-grade or demolition debris within the former foundation during the excavation of this material.

The basement floor survey (URS, July 2003) completed indicated no evidence of radiological contamination. However, the basement floor could have shielded gamma emissions. AECOM proposes that visual verification of the absence of fill material (and radiological surveying if urban fill material is present) beneath the basement foundation be conducted if removal of the former basement slab/foundation is necessary.

For fill below the floor, the method of investigation will consist of removal of the floor to gain access and subsequent performance of the walk-over survey if visual evidence of urban fill is present and the excavation can be entered safely. If the excavation cannot be entered safely, the spoil from the excavation will be screened as it is excavated and/or stockpiled adjacent to the excavation area. The results of this investigation will be included within the closure report for the Site. In addition, if AECOM pursues visual verification then AECOM shall immediately contact USEPA so USEPA can also conduct visual verification.

4.0 METHODS

4.1 Removal Action Level

The USEPA has set the removal action level as 5 pCi/g total radium (Ra-226 and Ra-228) above the background. A level of 2.1 pCi/g total radium is currently considered background for the area by the USEPA. Thus, radiologically-contaminated material is defined by the USEPA for the Streeterville area as exceeding a removal action level of 7.1 (pCi/g) total radium.

Field measurements will be taken of gamma radiation levels using a Ludlum 2221 and a 2 x 2 inch NaI detector. The equipment will be calibrated to determine the gamma count in counts per minute (cpm) that is equivalent to 7.1 pCi/g. Equipment calibration will be performed using the thorium calibration blocks at the former Tronox/Kerr-McGee West Chicago Rare Earth Facility or other USEPA-approved source.

Field measurements of gamma counts will include the following:

- Surveys of excavations as overburden below the removal action level is removed;
- Surveys of excavations as radiologically-contaminated fill is removed;
- Surveys of excavations to document all contaminated fill has been removed;
- Surveys of utility or foundation excavations; and
- Surveys of deep foundation excavations or drilling spoil.

4.2 Asbestos

In April 2014, at another Streeterville site, a sample was collected from a radiologically-contaminated area that visibly contained numerous 3-5 inch strings. Lab results of the polarized light microscopy (PLM) indicated the strings were approximately 20-25% chrysotile, a common form of asbestos. The asbestos containing strings appear directly related to the mantles and were likely used to tie the mantles to a ceramic fitting that attached to the gas lamps. Based on the comments from the USEPA regarding analyses conducted, AECOM understands that the mantle strings themselves were apparently dipped/coated with thorium. Therefore, the use of field instrumentation to remove the thorium contaminated fill is expected to effectively remove the mantle related asbestos string ties. These asbestos strings have not been documented previously at the Site. However, if observed the string ties will require a slight modification to the plans and procedures historically utilized for thorium contaminated fill. The USEPA will be notified should screening activities reveal the presence of string ties.

The overburden that is not radiologically-contaminated will be removed in lifts of 18-inches or less. Procedures for the handling and the management of the asbestos containing fill will be implemented prior to the excavation of the radiologically-contaminated fill since the asbestos appears to be related to the asbestos containing string ties that are visible within the thorium contaminated fill. If asbestos appears to be involved the air monitoring will be upgraded and asbestos related air monitoring and PAM analysis will be conducted. Asbestos related work will be conducted by a licensed asbestos abatement contractor, if necessary. During the excavation and handling of radiologically-contaminated materials, the procedures to be followed to control dust will include traffic speed control and potentially the use of water to keep the fill and/or soil moist. Radiologically-contaminated fill above the Project Action Level will be loaded directly into the Super Sack® type bulk storage bags as the material is excavated. Radiologically-contaminated material stored on-site will be stored in bulk storage bags that will be labeled and stored according to the applicable asbestos regulations.

In summary, based on conversations with the USEPA, the asbestos containing string ties are directly related to the mantles and gamma spectroscopy has confirmed that they have elevated radium activities. As such, the mantle ties will be detectable via gamma surveying. Therefore, removal of the thorium contaminated fill is expected to effectively remove the mantle related asbestos.

4.3 Surficial Walk-over Surveys

Surficial survey methods will be used in this project to initially identify the potential presence of radiologically-contaminated materials. The same general techniques will be used for site-wide grading and/or excavation screening to survey for the presence of contamination. Additionally, those areas currently covered by pavement and/or buildings that precluded the survey of exposed fill, will be subject to walk-over surveys. If necessary, paving stones, asphalt, concrete and the associated gravel base course will be removed prior to conducting the walk-over survey. A grid with a 20-foot spacing will be marked by stakes and flagging at the edges of the project area or by paint on the ground surface on the interior of the site. The areas between the grid points will be scanned to cover 100 percent of the intra-grid areas.

The surveys will be conducted using a Ludlum 2221 and a 2 x 2 inch NaI gamma detector. The detector will be unshielded to provide for a broader screening area in assessing the surface survey. Values will be recorded in cpm. The maximum value will be recorded for each grid cell and all anomalously high areas (2 times background) will have the approximate limits designated on the survey data sheets. The locations will be marked in paint on the ground surface. Field screening data sheets will include recording the instrument serial number, calibration date, operator, and site grid coordinates surveyed. A copy of a field data sheet is attached (see Appendix H).

Locations with elevated gamma counts (twice background) will be marked to identify the limits of the elevated readings. Those areas that exceed the USEPA removal action level of 7.1 pCi/g total radium will be designated as Exclusion Zones. Work activities within the Exclusion Zones will be conducted in accordance with the procedures outlined in the HASP and are briefly summarized in Section 5.0.

Additional documentation of contaminant levels may be performed through the collection of samples for laboratory analysis using NUTRANL and/or high-resolution gamma spectroscopy analyses. Gamma spectroscopy samples will be collected in 500 ml Marinelli beakers and submitted to a subcontract laboratory for analysis. These samples may be collected to: a) document where removal is necessary; b) indicate areas where removal has been successful; or c) document areas that are below the USEPA removal action level as indicated by the NaI detector.

4.4 Pre-verification Surveys for Radiologically-Contaminated Areas

Pre-verification (confirmation) screening surveys will be conducted during the excavation of fill materials identified as radiologically-contaminated. Excavated locations will be screened in accordance with SOP-210 (Appendix E). Since evidence of radiologically-contaminated fill in excess of the 7.1 pCi/g removal action level has been identified, these areas will be designated as Exclusion Zones. As described in the Health and Safety Plan (HASP) and discussed briefly in Section 5.0, the Exclusion Zones will require appropriate PPE and personal air monitoring to enter. All equipment and personnel that enter an Exclusion Zone will need to be frisked clean upon leaving the Exclusion Zone. Personnel entering Exclusion Zones must be 40-hour health and safety trained. The surveys will be conducted using a Ludlum 2221 and a 2 x 2 inch NaI gamma detector.

During remediation of radiologically-contaminated materials, urban fill within Exclusion Zones that has not been documented as being below the removal action level will be surveyed in-place. Remediation excavation activities will proceed in lifts not to exceed 18 inches in thickness. If an increase in gamma radiation is noted on the order of twice background values, excavation will proceed in thinner lifts to minimize the potential for mixing clean and radiologically-contaminated fill. Excavation of contaminated material will proceed using an excavator with a maximum bucket volume of one cubic yard. This bucket size will facilitate loading the transport containers without spilling and spreading the radiologically-contaminated fill contamination. The subsample locations will be obtained by dividing the 100 m^2 area (10-meter x 10-meter) into four equal quadrants of 5-meters x 5-meters. Four of the subsamples will be collected from the center of the 5-meter x 5-meter quadrants. The fifth subsample will be obtained from the center of the 10-meter x 10-meter sample area. Sample collection will be in accordance with SOP-214.

Once the pre-verification screening indicates the absence of radiologically-contaminated material above the removal action level, fill or soil samples will be collected over a maximum 100 m^2 area for pre-verification analysis at a laboratory. Five subsamples will be composited to develop the sample for each 100 m^2 area. Analysis will be either by NUTRANL or gamma spectroscopy. After pre-verification analysis shows the area is less than the removal action level, the area will be subject to verification surveys and sampling by USEPA, in accordance with Section 4.5 of this Work Plan. The excavations will not be backfilled until a signed radiological verification closure form is received from USEPA.

Fill screening during the course of the remediation excavation activities is also intended to minimize the incorporation of clean material into materials which are designated for radiological disposal. Fill indicative of levels below 7.1 pCi/g total radium by the pre-verification screening process prior to excavation will be staged for potential use as backfill. As previously indicated, excavation conducted to remove radiologically-contaminated material will proceed using an excavator with a maximum 1 cubic yard bucket. This bucket size will also allow the excavated fill to be screened a second time, if necessary, before being placed on the backfill pile. This potentially non-contaminated fill may also be subject to verification surveys and sampling by USEPA, if requested, in accordance with SOP-214 (Appendix E) and Section 4.5 of this Work Plan.

Prior to the initiation of activities, gamma count rate background levels shall be established for each applicable survey instrument. Six locations shall be chosen in non-radiologically-contaminated areas of the Site. A one-minute integrated count shall be obtained at the surface of each location, for each survey instrument (Ludlum 2221 with 2" x 2" NaI probe). The measurements collected from each location shall be averaged to establish instrument specific background gamma count rates.

Excavated locations will be screened in accordance with SOP-210 (Appendix E). To demonstrate to the USEPA that the floors and sides of fill excavations meet removal action level criteria specified by USEPA, a verification/field sampling program must be implemented following the excavation of the radiologically-contaminated materials. The verification survey sampling program will be conducted in general accordance with SOP-223 and SOP-214 (Appendix E).

The excavations will not be backfilled until a signed radiological verification closure form is received from USEPA. Initial field demonstration that the location has been excavated to clean limits will be made with a shielded 2 x 2 inch NaI detector. Pre-verification samples will be collected and analyzed using NUTRANL software or gamma spectroscopy analyses. It is anticipated that both the NUTRANL software and gamma spectroscopy analyses will be conducted at an off-site (fixed) laboratory. Samples for high resolution gamma spectroscopy analysis will be taken to a subcontract laboratory operated by RSSI. If

utilized, NUTRANL results would be provided in two forms. The initial NUTRANL data set will consist of one set per sample and will include the radionuclide concentrations and error limits for uranium 238, thorium 232, radium 226, and potassium 40; the sample number; date and time sampled; laboratory number (sequential); identify the analyst; and analytic method (NUTRANL). The second lab data form will be a consolidated spreadsheet with all analysis in sequence by laboratory number. This table will include the sample number, data and time sampled, radionuclide concentrations and error limits for the four NUTRANL analytes, and a line totaling the thorium and radium concentrations. The laboratory will also maintain a copy of the chain-of-custody for those samples received and analyzed.

4.5 Verification Sampling

As previously indicated, fill exhibiting contamination above the removal action level of 7.1 pCi/g total radium (Ra-226 + Ra-228) will be removed, placed in transport boxes and shipped to a disposal facility licensed/approved to receive this material. Excavated locations will be screened in accordance with SOP-210 (Appendix E). To demonstrate to the USEPA that the floors and sides of fill excavations meet removal action level criteria specified by USEPA, a verification/field sampling program must be implemented following the excavation of the radiologically-contaminated materials. The verification survey sampling program will be conducted in general accordance with SOP-223 and SOP-214 (Appendix E).

The excavations will not be backfilled until a signed radiological verification closure form is received from USEPA. Initial field demonstration that the location has been excavated to clean limits will be made with a shielded 2 x 2 NaI detector. Pre-verification samples will be collected and analyzed using NUTRANL software or gamma spectroscopy analyses. It is anticipated that both the NUTRANL software and gamma spectroscopy analyses will be conducted at an off-site (fixed) laboratory. Samples for high resolution gamma spec analysis will be taken to a subcontract laboratory operated by RSSI.

If utilized, NUTRANL results would be provided in two forms. The initial NUTRANL data set will consist of one set per sample and will include the radionuclide concentrations and error limits for uranium 238, thorium 232, radium 226, and potassium 40; the sample number; date and time sampled; laboratory number (sequential); identify the analyst; and analytic method (NUTRANL). The second field lab data form will be a consolidated spreadsheet with all analysis in sequence by laboratory number. This table will include the sample number, data and time sampled, radionuclide concentrations and error limits for the four NUTRANL analytes, and a line totaling the thorium and radium concentrations. The field laboratory will also maintain a copy of the chain-of-custody for those samples received and analyzed.

Sample analysis should include analysis of quality control samples and reporting of their results. It is recommended that the laboratory use the U.S. Department of Energy Radiological and Environmental Sciences Laboratory (DOE RESL) performance evaluation standards that should be in either lab's possession; standard number RESL08095 specifically should be used. Evaluation of quality control sample results will be similar to that of RESL's Mixed Analyte Performance Evaluation Program (MAPEP), with performance flags assigned for each analyte of interest to EPA in this performance evaluation (Specifically Th-232/Ac-228 and the interpretation of Ra-226 concentration).

Flag	Meaning	Criteria for Radiological Analytes
"A"	Acceptable	Bias <= 20%
"W"	Acceptable with Warning	20% < Bias <= 30%
"N"	Not Acceptable	Bias > 30%

4.6 Materials Management

Two categories of urban fill material will be distinguished in the excavation process: Non-radiologically-contaminated fill suitable for backfill that does not exceed the removal action level of 7.1 pCi/g total radium, and excavated urban fill that is radiologically-contaminated in excess of the removal action level of 7.1 pCi/g total radium. There also may be materials that will be specified as unsuitable for backfill, based on engineering properties, non-radiological contamination, or other specifications.

4.6.1 Non-Radiologically Contaminated Material

Material from the Site that is not radiologically-contaminated at levels above the removal action level of 7.1 pCi/g total radium may be replaced in their original locations, placed in another location on the Site, salvaged (i.e., recyclable materials), or handled (i.e. fills delivered to a designated landfill) in accordance with applicable laws and regulations. No non-radiologically-contaminated materials (i.e., petroleum, etc.) are known to be present at the Site. However, materials that based on visual or olfactory observations are suspected to be contaminated by non-radiological contamination may be temporarily staged on-site to allow for proper sampling and characterization for disposal. These materials will be placed on liners and will be covered to minimize potential for erosion and spread of contamination.

Materials that are not radiologically-contaminated above the removal action level of 7.1 pCi/g total radium, and are designated to be removed from the Site, will be disposed of in accordance with applicable regulations as necessary.

4.6.2 Radiologically-contaminated Material

Radiologically-contaminated material excavated from the Site will be temporarily stored in super-sacks until final disposal arrangements can be completed. Stored fill will be properly secured with fencing and placarded with appropriate warning signs (i.e., similar to that utilized for Exclusion Zones).

Radiologically-contaminated materials will be transported to an approved disposal facility. At present, the facility is undetermined, but will be either EnergySolutions in Clive, Utah or US Ecology in Grand View, Idaho. Shipping and placarding will be in accordance with all Department of Transportation regulations. Permitting for disposal will be arranged before contaminated material is loaded for shipment. Radiologically-contaminated materials will be transported between the Site and the approved disposal facility according to DOT regulations. Procedures which will be used to minimize the potential for and effects of spills and accidents during transport of materials radiologically-contaminated above the removal action level of 7.1 pCi/g total radium include, but are not limited to, the following:

- Drivers will have the proper licenses, training, and certifications for transporting potentially radioactive materials.
- Trucks will carry all necessary papers and placarding. AECOM will inspect the bulk storage bags prior to loading to determine suitability for transport.
- If required, contaminated vehicles and equipment will be decontaminated first using broom cleaning to remove all adhering surface dirt. As needed, pressurized water spray will be used for further decontamination. Water generated during decontamination will be contained and evaporated, used for dust control on contaminated fill designated for disposal, or possibly sent for disposal at an approved disposal facility.
- Prior to transporting radiologically-contaminated excavated fills or other materials, all transport equipment will be frisked if there is reason to believe they may have come in contact with contaminated material. Frisking will include tires and fenders and the sides and back of the bed. Frisking the cabs of trucks will not be necessary unless loading has been over the front of the truck.

Soil or fill that, based on visual or olfactory observations, is suspected to be contaminated by non-radiological contamination will be temporarily staged on-site to allow for proper sampling and characterization for disposal. These materials will be placed on liners and will be covered to minimize potential for erosion and spread of the material.

4.7 Data Management and Report

Data management for the site consists of site safety and training records, health physics data (i.e., air monitoring and personnel monitoring data), soil radioactivity field and laboratory data, shipping and

transport records, and civil construction and excavation data (i.e., land surveys, excavation volume estimates, etc.). A local laboratory will be used to analyze soil samples as excavation and removal proceeds, and for pre-verification sampling to demonstrate the removal action level has been met. Analytical records will be kept at the site and at the AECOM office in Chicago, Illinois. Air monitoring analyses will be maintained at both the site and the AECOM office, and will be transmitted with the monthly project progress reports to USEPA.

Monthly progress reports will be submitted to USEPA beginning 30 days after initiation of the field work, and will be submitted monthly by the 15th of each month until submission of the Closure Report document, unless otherwise directed by the USEPA On-Scene Coordinator (OSC). These monthly reports will describe all significant developments during the preceding period, including the work performed, and any problems encountered, analytical data received during the reporting period, and developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and planned resolutions.

4.8 Exclusion Zone Access and Security

Access by unauthorized personnel to the Exclusion Zone excavation areas will be controlled during operational and non-operational hours because of hazards created by open excavations, moving contractors' equipment, and traffic. Only authorized personnel will be permitted within the fenced area. Exclusion Zone access will be directed by the Project Coordinator, Field Team Leader or their designated representative (see HASP). The excavation work area will be fenced with a temporary chain-link fence unless the access is restricted by fencing at the site perimeter. In the case of a perimeter fence, access to the excavation areas will be restricted through the use of temporary fencing (i.e., plastic barrier fencing). This fencing will include appropriate signage to provide security during non-operational hours. Access gates/points will be closed when not in use.

During operational hours, the project management consultant, its contractors and subcontractors, and their representatives will have access to the excavation area to implement the excavation activities. The party responsible for radiological materials transport and their contractors and subcontractors will have access to implement health physics and transportation activities. Information on restrictions to the excavation areas, and various signs and barricades, will be disseminated during the project kick-off meeting held at the beginning of the project.

All visitors desiring access to the excavation area will be required to register with the Project Coordinator or his designee. The Project Coordinator or his designee will provide necessary orientation and training,

provide radiation monitors as appropriate, and escort the visitors. The visitors will be required to observe all health and safety requirements and follow all instructions given by the Field Team Leader.

Regulatory and governmental officials who visit the excavation areas regularly will be requested to notify the Project Coordinator or the Field Team Leader. They will be required to comply with all Health and Safety rules.

During non-operational hours, barricades, beacons, warning signs, and temporary fencing, as appropriate, will be placed to prevent unauthorized entry into an Exclusion Zone. Exclusion Zones will be surrounded with magenta and yellow rope and stakes or fence posts until determination that it meets the USEPA removal action level. Signs will be placed on the excavation area perimeter fencing identifying the area as a construction area and prohibiting unauthorized entry. The warning signs will be installed at maximum 100 foot intervals on the perimeter fence.

4.9 Decontamination

All discarded materials, waste materials, and other field equipment and supplies shall be handled in such a way to prevent the potential spread of contamination during excavation and restoration activities. Discarded items that have contacted contaminated materials will be containerized and stored for disposal at the approved disposal facility. Non-contaminated items to be discarded will be collected for disposal as general refuse waste. Personnel and sampling equipment decontamination are described in the Decontamination Procedure included as SOP-347 of Appendix E.

4.10 Temporary Storage of Radiologically-Contaminated Material

As per discussion with the USEPA, there may be a need for temporary on-site storage of radiologically-contaminated materials. Projects previously conducted in Streeterville have involved Tronox in the transportation and disposal of the radiologically-contaminated fill. If discovered, it is anticipated that radiologically-contaminated fill will be staged temporarily on-site in bulks storage containers (bags) until the remediation efforts are complete or sufficient volume has been staged for transportation. Stored fill will be properly secured with fencing and placarded with appropriate warning signs (i.e., similar to that utilized for Exclusion Zones)

5.0 HEALTH AND SAFETY PLAN (HASP) SUMMARY

Site surveys, excavation and remediation activities will be conducted in accordance this Work Plan and the enclosed USEPA Streeterville HASP. The HASP is provided in Appendix I. Additionally, reference is made to the following documents included within Appendices:

- Dust Control Plan
- SOP-210 – Gamma Radiological Surveys
- SOP-217 – Excavation Procedure
- SOP-223 – Verification Survey Procedure
- Construction Health and Safety

The Streeterville HASP addresses required training, personnel protection equipment, general work precautions, and medical monitoring among other issues. In general, as contamination is detected, either by the initial surface survey or in the course of monitoring the excavations, the areas will be designated with a magenta and yellow rope and stakes or fence posts. These areas will be designated Exclusion Zones, and will require appropriate PPE and personal air monitoring to enter. All equipment and personnel that enter an Exclusion Zone will need to be frisked clean upon leaving the Exclusion Zone. Personnel entering Exclusion Zones must be 40-hour health and safety trained.

All accidents or injury "near misses" will be documented and communicated to the Project Coordinator and Field Team Leader in a timely manner. Project safety briefings will be held on a weekly basis, and a project tailgate meeting will be held on a daily basis as a regular part of project communication between the Field Team Leader and project contractors and subcontractors.

5.1 Key Personnel

While health and safety will be the concern of every person on the job, the radiation survey and excavation management team will be responsible for the implementation of the HASP. These persons are the Project Coordinator, Health and Safety Officer and the Field Team Leader. Figure 4 presents the project management work organization chart. The responsibilities for these positions are detailed in the HASP. Radiation laboratory subcontract services will be provided through Stan A. Huber and Assoc. or RSSI.

5.2 Potential Hazards

Potential hazards that could be encountered during the removal activities include contaminated materials and the hazards associated with construction work. Contaminants of concern include the entire decay series for U-238 and Th-232. Radiological and air monitoring as described in this Work Plan will be performed during excavation to define the presence of radiological contaminants.

The mechanisms for exposure to the radiologically-contaminated fill material are direct exposure, inhalation, ingestion and eye/skin contact. The primary mechanism of exposure is direct exposure to external gamma radiation. All workers will be instructed in appropriate measures to protect against exposure to the above materials, and PPE will be worn until monitoring shows such is not necessary.

Physical hazards which might be encountered at this site include but are not limited to the following:

- Construction equipment (front-end loaders, back-hoes, trucks, compactors, bulldozers);
- Power tools (saws, drills, jack hammers, compactors);
- Heat and cold stress;
- Overhead power lines;
- Excavations;
- Confined space;
- Noise;
- Demolition of structures;
- Slip, trip and fall conditions, especially during wet or freezing periods; and
- Buried utilities.

For this project, "utilities" include natural gas, water, sewer, communication, cable television lines, and electrical power distribution systems. Prior to the physical site survey, city and utility company records concerning location and construction of utilities on and in the general vicinity will be reviewed and consolidated on a single Utility Plan Drawing. The appropriate utility companies or their designees will be asked to verify the location by originating a request through the Chicago Utility Alert Network (DIGGER) phone number: 312-744-7000, and through application to the Office of Underground Coordination (OUC).

The locations of the identified utilities will be "ground-truthed" by observing the locations of power and phone poles, above-ground transformers (where electrical distribution lines are below ground), manholes, water meters, natural gas meters, phone boxes, surface indications such as utility vaults, catch basins, and surface depressions which can occur over utility trenches, and the locations marked by the utility companies or their representatives. Procedures for working in the vicinity of utilities and repair to

damaged utilities will be discussed with the excavation contractor crews. All work on and in the vicinity of utilities will be in accordance with City and utility company specifications.

Additional details on these and other safety provisions are addressed in the HASP.

5.3 Training and Communications

Site and project specific radiation and health and safety training will be provided for all on-site personnel prior to work on the Site. All personnel required to work in the Exclusion Zone or Contamination Reduction Zone shall complete training conforming to the requirements of 29 CFR 1910.120(e) including 40 hours of initial hazardous waste site worker training. Where appropriate, they shall have 8 hours of annual refresher training, and 8 hours supervisors training. Field personnel involved in remediation activities shall complete radiation safety training in compliance with 32 IAC 400. This training shall include, at a minimum, 4 hours of training pertaining to radiation safety and awareness. Training will be conducted by a qualified safety specialist and/or a qualified senior health physics technician, at a minimum. The project training program is included in HASP. As noted in the HASP, Federal safety requirements take precedence over state requirements.

All site personnel will be trained and briefed on radiation basics, anticipated hazards, equipment to be worn, safety practices to be followed, contamination prevention practices, emergency procedures, radiation basics and communications. Procedures for leaving a contaminated area shall be planned and implemented prior to going on-site. Work areas and decontamination procedures will be established based on expected site conditions, and updated as necessary during construction. Other guidelines such as heat and cold stress, excavation safety and confined space are included within the HASP.

In addition to this formal health and safety training, "tailgate" safety meetings will be held weekly, or more frequently, dependent on safety issues arising during the project. These meetings may be led by the worker's foremen and every employee must sign in before beginning work for the week. The subject covered and persons present will be recorded for each meeting and kept as part of the project records. Health and safety incidents and monitoring results will be discussed in the tailgate safety meetings, when appropriate.

Visitors to the site will be briefed on the requirements of the HASP before being allowed within the work area, and will be accompanied by a foreman or supervisor whenever possible.

5.4 Personnel Protective Equipment

If radiologically-contaminated fill removal is necessary, all personnel operating in Exclusion Zones will be required to have personal air monitors (PAMs). Disposable coveralls, steel-toed work shoes, boot covers, hard hat, safety glasses and gloves will also be required in all Exclusion Zones. Prior to exiting any Exclusion Zones, personnel will go through decontamination, disposal of all appropriate PPE, and frisking procedures as described in the HASP.

5.5 Air Quality Monitoring

The principal objectives of the air monitoring activities are to:

- Ensure worker and general population safety and provide radiological control information;
- Evaluate work procedures and site control measures. In addition to identifying the need for corrective action, air monitoring also documents the effectiveness of such control actions; and
- Measure releases of airborne radioactivity (should any occur) and ensure that people living and working in the surrounding area are not exposed to radiation above acceptable limits.

A primary requirement of dust control is "no visible dust" during activities associated with contaminant removal. The excavation (remediation) and fill handling areas where contaminated fill is present will be required to have no visible dust. Fugitive dust generation is caused by a range of activities including excavation, loading, dumping, transporting and scraping using heavy equipment such as bulldozers, front-end loaders, trucks and graders.

Air monitoring is generally conducted for the purpose of documenting and, if detected, initiating measures to control airborne contamination. High volume air sampling equipment has been used in the past for large-scale remediation efforts in Streeterville and has not indicated an issue. Therefore, it is apparent that control measures are appropriate for controlling fugitive dust issues and high volume air sampling provides little or no benefit on this project. As stated previously, the presence of radiologically-contaminated material at the Site has not been confirmed. If the volume of contaminated fill that will be excavated is minimal (measured in yards rather than hundreds of yard), the potential to create a fugitive dust issue is reduced significantly and a request to USEPA will be made to limit air monitoring potentially to just personal exposure monitoring.

During the excavation and handling of radiologically-contaminated materials, the procedures to be followed to control dust will include traffic speed control and use of covered stockpiles. Excavated radiologically-contaminated fill above the Removal action level of 7.1 pCi/g total radium will be loaded directly into the super sacks as the material is excavated. Radiologically-contaminated material stored

on-site will be stored in super-sacks. Stockpiled uncontaminated materials, including excavated and imported borrow material, will be piled (height limited) to minimize dust generation. If these initial efforts appear to be inadequate to control dust, water will be applied during the course of excavation and restoration activities as directed by the Field Team Leader to prevent, mitigate or reduce dust resulting from excavation activities. The Dust Control Plan (Appendix F) provides additional detail on the control measures that may be implemented, if necessary, at the Site.

5.5.1 Personal Exposure Monitoring

Personnel operating in Exclusion Zones will be required to have personal air monitors (PAMs). Procedures for personal air monitoring are discussed in the HASP and SOP-212 (Appendix E). Lapel samplers worn for personal air monitoring will be utilized for airborne radioactivity monitoring. Air filters will be analyzed on a daily basis and additional evaluation of samples will be performed when determined necessary based on elevated results. Procedural changes or control measures, such as wetting of fill, will be employed prior to the prescription of respiratory protective equipment.

6.0 CLOSURE DOCUMENTATION

An objective of the Work Plan is to document the identification, handling, and disposal of radiologically-contaminated fill encountered during construction activities at the Site. The following types of data will be generated during the project:

- Surface gamma survey records
- Fill or soil sampling records
- Sample field laboratory data
- Fixed laboratory fill analyses data (USEPA contract and AECOM subcontract laboratories)
- Air quality sampling records
- Air quality analytical data

The results of the Work Plan investigation and the removal work will be presented in a final closure report. The closure report will provide a summary of the locations of contaminated material identified during the project, areas remediated, a drawing of uninvestigated areas (if any), and identify any known areas where contaminated fill remains on-site. The report will include field data summaries, laboratory results, documentation of the volume of material removed and its disposal location. The report will present the information as the basis for and will request issuance by USEPA of a "Certification of Completion Letter" for the Site. The final closure report will be submitted within 60 days of completion of the removal work and on-site investigations.

7.0 REFERENCES

STS (October 2, 2007) Parcel 1 Completion Report – 400 East Illinois Street, Chicago Illinois, STS Project No, 1-27313-XC.

STS (May 12, 2005) Work Plan for Pre-Construction Radiation Screening, ParkView West Development, Northwest Corner of North Peshtigo Court and East Illinois Street, Chicago Illinois, STS Project No, 1-27313-XC.

STS (April 12, 2002) Phase I ESA at Parcels 21 and K, Chicago Illinois, STS Project No, 1-24418b-YB.

STS (April 4, 2002) Phase I ESA at Parcels 21 and K, Chicago Illinois, STS Project No, 1-24418a-YB.

STS (November 20, 2000) Radiological Survey of the Three Parking Lots in the Vicinity of the Former Kraft Building, Chicago Illinois, STS Project No, 1-24418-XO.

STS (August, 1992) Northwestern Memorial Hospital New Site Investigation, Columbus Drive and Grand Avenue, Chicago Illinois, STS Project No, 1-27313-XH.

URS (October 6, 2003) Letter Report Update of Phase I Environmental Site Assessment of Parcel K, Chicago Illinois, URS Project No. 52603-007-007.

URS (September 30, 2003) Letter Report Update of Phase I Environmental Site Assessment of Parcel 21, Chicago Illinois, URS Project No. 52603-004-007.

URS (July, 2003) Gamma Detection Survey and Soil Sampling, Kraft Building North Parking Lot, Peshtigo Court, Chicago Illinois.

USEPA (May 17, 2005) Comments on the Work Plan for Pre-Construction Radiation Screening, ParkView West Development, Chicago, Illinois.

USEPA (March 23, 2001) Radiation Survey, 26-Acre Site, Southwest Corner of Wacker Drive and Lake Shore Drive, Chicago Illinois.

USEPA (November 13, 2000) Geotechnical Radiation Survey, 26-Acre Site, Southwest Corner of Wacker Drive and Lake Shore Drive, Chicago Illinois.

USEPA (October 17, 2007) Completion of Work Under Docket No. V-W-05-C-834 for Parcel 1 of Lindsay Light II Site OU10, 400 East Illinois, Chicago Illinois.